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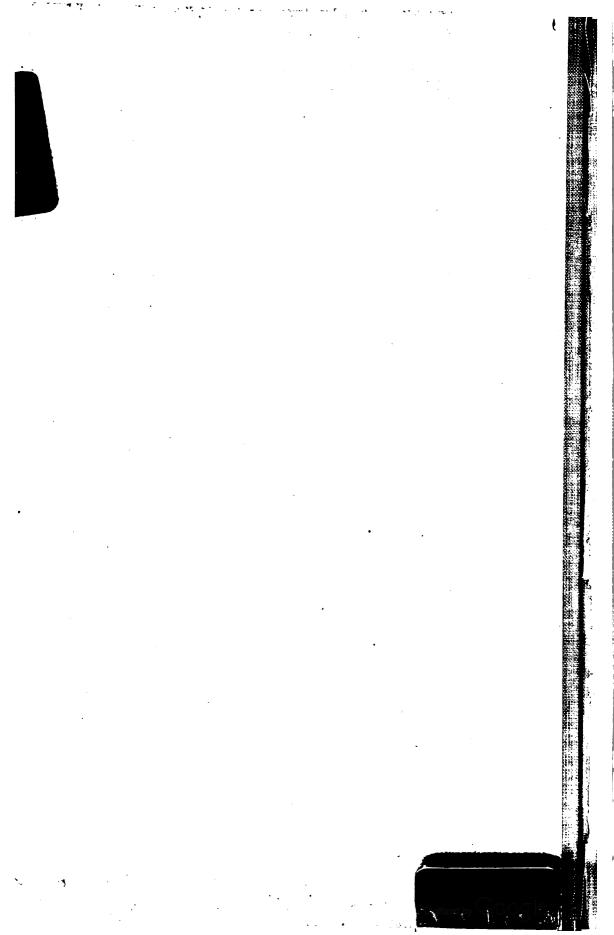
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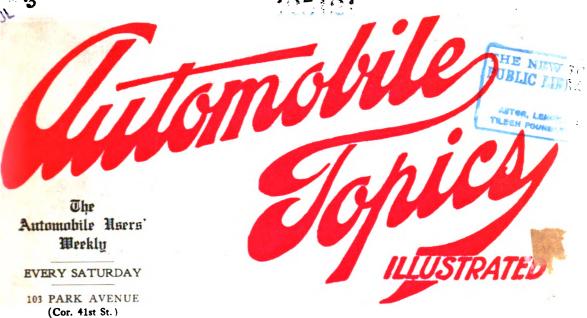
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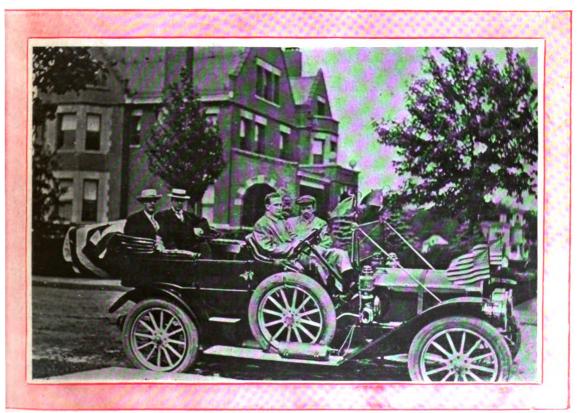
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NEW YORK, JULY 3, 1909

No. 13



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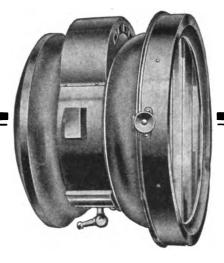
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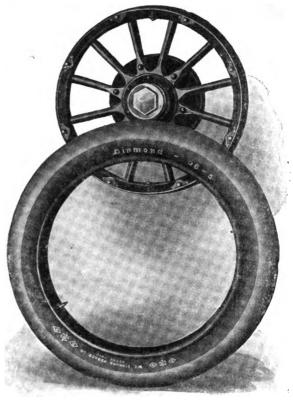
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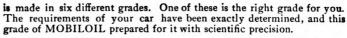
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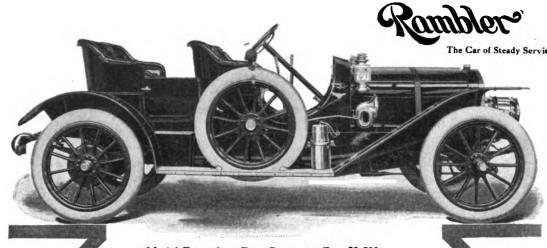


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Vol. XVIII.

NEW YORK, JULY 3, 1909.

No. 13.

TABLE OF CONTENTS

Flight of the Curtiss Aeroplane at Morris Park, N. Y., June 26	Frontispiece	848
Topics		849
Continuous Round of Festivities for A. A. A. Tourists		851
Getting Ready for Next Year's Show	·····	852
Powell Evans Goes to Attend Road Congress		852
De Palma Makes Track Records at Philadelphia	Illustrated	85.3
Changes in Route to Delaware Water Gap		855
Cincinnati Motorists Climb Fort Ancient Hill		856
Curtiss Makes Sensational Flight at Morris Park		858
Successful Hill Climb at Ossining		850
New York Now Has a Taxicab Ordinance		860
Binghamton Club's Tour a Successful One		
Philadelphia Club Holds Secret Time Run		862
Many Cars in Annual Scottish Trials		86
Declare Ford No. 2 Winner of Seattle Contest		
Boston Clubs Discuss Amalgamation		
The Gay Little God of Motor Cars	Illustrated	266
Speed War on Up-State		
Reeves Sees Through Rose-Colored Glasses	· · · · · · · · · · · · · · · · · · ·	868
Automobile Topics Touring Supplement—New York to Lake Mahopac	· · · · · · · · · · · · · ·	550
		ጸሌሳ
Had More Cars Than Were Needed		876
Had More Cars Than Were Needed		876
Had More Cars Than Were Needed	Illustrated	876
Had More Cars Than Were Needed Motor Stage Solves Transportation Problem Texans Race Before a Large Crowd	Illustrated	876 877 878
Had More Cars Than Were Needed	Illustrated	876 877 878 884
Had More Cars Than Were Needed	Illustrated	876 877 878 884 885
Had More Cars Than Were Needed	Illustrated	876 877 878 884 885 886
Had More Cars Than Were Needed Motor Stage Solves Transportation Problem Texans Race Before a Large Crowd Road Conditions in Central New York. Good Roads Propaganda in the South Lights and Their Regulation Clarkson Gets Chalfant's Place May Proports Very Heavy	Illustrated Illustrated Editorial	876 877 878 884 885 886 888
Had More Cars Than Were Needed Motor Stage Solves Transportation Problem Texans Race Before a Large Crowd Road Conditions in Central New York. Good Roads Propaganda in the South Lights and Their Regulation Clarkson Gets Chalfant's Place May Proports Very Heavy	Illustrated Illustrated Editorial	876 877 878 884 885 886 886
Had More Cars Than Were Needed. Motor Stage Solves Transportation Problem Texans Race Before a Large Crowd. Road Conditions in Central New York. Good Roads Propaganda in the South. Lights and Their Regulation. Clarkson Gets Chalfant's Place. May Exports Very Heavy. Form Baseball League Among Local Motorists.	Illustrated Illustrated Editorial	876 877 878 884 885 886 888 889
Had More Cars Than Were Needed Motor Stage Solves Transportation Problem Texans Race Before a Large Crowd Road Conditions in Central New York. Good Roads Propaganda in the South Lights and Their Regulation Clarkson Gets Chalfant's Place May Exports Very Heavy Form Baseball League Among Local Motorists. Bowden Wire Comes to America	Illustrated Illustrated Editorial Illustrated	876 877 878 884 885 886 886 886 890 891
Had More Cars Than Were Needed Motor Stage Solves Transportation Problem Texans Race Before a Large Crowd. Road Conditions in Central New York Good Roads Propaganda in the South Lights and Their Regulation. Clarkson Gets Chalfant's Place. May Exports Very Heavy Form Baseball League Among Local Motorists. Bowden Wire Comes to America. Buvers Like Blue Best.	Illustrated Illustrated Editorial Illustrated	876 877 878 884 885 886 886 890 891
Had More Cars Than Were Needed Motor Stage Solves Transportation Problem Texans Race Before a Large Crowd. Road Conditions in Central New York Good Roads Propaganda in the South Lights and Their Regulation. Clarkson Gets Chalfant's Place. May Exports Very Heavy. Form Baseball League Among Local Motorists. Bowden Wire Comes to America. Buyers Like Blue Best. Cincinnati Gets a 70 hp. Patrol Wagon.	IllustratedIllustratedEditorialIllustrated	876 877 878 884 885 886 886 891 892 893
Had More Cars Than Were Needed. Motor Stage Solves Transportation Problem Texans Race Before a Large Crowd. Road Conditions in Central New York. Good Roads Propaganda in the South. Lights and Their Regulation. Clarkson Gets Chalfant's Place. May Exports Very Heavy. Form Baseball League Among Local Motorists. Bowden Wire Comes to America. Buyers Like Blue Best. Cincinnati Gets a 70 hp. Patrol Wagon. How Electricity is Stored in a Battery.	Illustrated Illustrated Editorial Illustrated	876 877 878 884 885 886 891 891 893 893
Had More Cars Than Were Needed. Motor Stage Solves Transportation Problem Texans Race Before a Large Crowd. Road Conditions in Central New York. Good Roads Propaganda in the South. Lights and Their Regulation. Clarkson Gets Chalfant's Place. May Exports Very Heavy. Form Baseball League Among Local Motorists. Bowden Wire Comes to America. Buyers Like Blue Best. Cincinnati Gets a 70 hp. Patrol Wagon. How Electricity is Stored in a Battery. Worcester Men Acquire Grout Plant.	Illustrated Illustrated Editorial Illustrated	876 877 878 884 885 886 891 891 893 894 895
Had More Cars Than Were Needed Motor Stage Solves Transportation Problem Texans Race Before a Large Crowd Road Conditions in Central New York. Good Roads Propaganda in the South. Lights and Their Regulation Clarkson Gets Chalfant's Place May Exports Very Heavy Form Baseball League Among Local Motorists. Bowden Wire Comes to America. Buyers Like Blue Best Cincinnati Gets a 70 hp. Patrol Wagon. How Electricity is Stored in a Battery. Worcester Men Acquire Grout Plant. Index to Advertisers	Illustrated Illustrated Editorial Illustrated	876 877 878 884 885 886 891 893 893 893 893 893
Had More Cars Than Were Needed. Motor Stage Solves Transportation Problem Texans Race Before a Large Crowd. Road Conditions in Central New York Good Roads Propaganda in the South Lights and Their Regulation. Clarkson Gets Chalfant's Place. May Exports Very Heavy. Form Baseball League Among Local Motorists. Bowden Wire Comes to America. Buyers Like Blue Best. Cincinnati Gets a 70 hp. Patrol Wagon. How Electricity is Stored in a Battery. Worcester Men Acquire Grout Plant. Index to Advertisers. News Notes	Illustrated Illustrated Editorial Illustrated	876 877 878 884 885 886 891 892 893 894 895 895 896
Had More Cars Than Were Needed Motor Stage Solves Transportation Problem Texans Race Before a Large Crowd Road Conditions in Central New York. Good Roads Propaganda in the South. Lights and Their Regulation Clarkson Gets Chalfant's Place May Exports Very Heavy Form Baseball League Among Local Motorists. Bowden Wire Comes to America. Buyers Like Blue Best Cincinnati Gets a 70 hp. Patrol Wagon. How Electricity is Stored in a Battery. Worcester Men Acquire Grout Plant. Index to Advertisers	Illustrated Illustrated Editorial Illustrated	876 877 878 884 885 886 888 891 892 893 894 895 895 896

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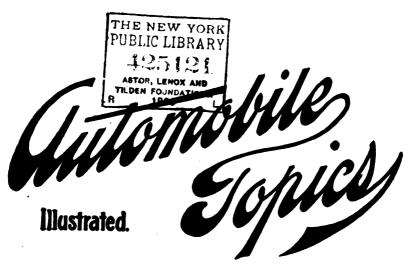
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FLIGHT OF THE CURTISS AEROPLANE AT MORRIS PARK, N. Y., JUNE 26



THE AUTOMOBILE USERS' WEEKLY

Vol. XVIII.

NEW YORK, JULY 3, 1909.

No. 13.

TOPICS

The farmer, the automobile and good roads are three subjects that are so intimately connected, and so much discussed, that there is Just at present the attitude of the farmer.

danger of their becoming tiresome. Just at present the attitude of the farmer, as a class, toward the automobile is one that differs very greatly, being dependent on whether the said farmer is also a motorist—or thinking of becoming one or not. Formerly, the hostility of the farming class, as a whole, toward the motor vehicle was very pronounced. He regarded it as a nuisance, of course, but very much more than that. It was something that he was not personally interested in; he had no hope and little expectation of ever becoming a motorist, and this aloofness had much to do with coloring his feeling toward it.

All this passed away, and the farmer of to-day is one of the keenest users and freest buyers of the motor vehicle. The realization has finally come that the automobile means just as much to the farmer as it does to the city man, and with that realization has come an utter change of viewpoint. We do not mean that all farmers are motorists, or look upon automobiles with approval and appreciation. Quite the contrary is the case. Large as is the number of farmer-motorists, the proportion of the whole is still exceedingly small. At the present time farmer folk are divided into three classes: One is the motorist, another the prospective or possible motorist, and the third the anti-motorist. The latter, whether because of dislike or the lack of means to purchase, still regards the motor vehicle and all who use it with undisguised hostility. He has no use for it, no toleration of it, and if he could have his way, automobiles would be barred from the public highways. This element is having constant inroads made upon its ranks, but the number is, and for a considerable time will continue to be, sufficiently large to cause no end of trouble if they act in concert and make their protests effective.

It behooves motorists, therefore, to be circumspect in their actions and void, or as void as possible, of offense as the circumstances will permit. They can well be content to let time work in their favor. It will work, and work while they

sleep, as well as while they are awake. The motor vehicle is just beginning to find users. During the years to come its field of usefulness will be extended enormously—far beyond what even the most sanguine observers of to-day predict. With the increase, the vast increase, that is to come, there will arise the necessity for a better regulation of traffic. Motorists will be forced to demand such a regulation as a matter of self-defense. This also can be left to the future, however.

"India's coral strands" will shortly know the taxicab. Bombay and Madras are soon to have a supply of these useful vehicles, the Indian government having arranged the matter.

A noteworthy incident attended the golden wedding celebration of a Wisconsin couple recently. The bride and groom of fifty years ago were taken to the church in which they were married by an ox-team, the method of transportation used on the occasion of the first ceremony. Returning from the church, however, the couple occupied the tonneau of a large touring car, owned by their son. Everybody did not ride in ox-carts half a century ago, but neither do all vehicle users employ motor vehicles now.

An English concern has just awarded ten prizes of \$100 each to chauffeurs who did best in keeping their cars properly lubricated. To determine the matter "surprise visits" were paid to the garages where the cars were kept.

Governor Dineen, of Illinois, has signed a measure passed by the Legislature which provides that judges and constables may take into consideration the existing traffic conditions at the time of the alleged speed violations. If it is discovered, therefore, that the motorist was driving at a reasonable rate, the judge may discharge the prisoner, despite the fact that the testimony indicates that the speed was greater than the maximum by law. What a marvelous concession!

Many cars are being sent abroad for the use of their owners who have arranged tours in Europe. One outgoing steamer last week carried nineteen cars—all of them of American manufacture. It is said that up to the first week in June the steamship companies had carried as many cars abroad for American tourists as during all of last yer. The big rush is now over, but early in the fall the shipment of cars to Mediterranean ports will begin, and it looks as though twice the number of cars will be sent abroad for continental travel by American owners as compared with a year ago.

Commissioner Bingham, of the New York police, is after grafting bicycle cops. That he has a big job ahead of him, anyone conversant with the situation in and around New York will admit.

"Sane automobiling" has a very taking sound, and admonitions to be "sane" are much needed, judging from the number of automobile accidents recorded in the daily press. "Get there and get back" is a cry that has a bearing on the subject also.

Continuous Round of Festivities for A. A. A. Tourists

One continuous round of festivities at the stopping places is what is promised the A. A. A. (Glidden) tourists, who leave Detroit July 12 en route for Denver, via Minneapolis and St. Paul. At each night stop preparations are being made for entertainment that will cast in the shade anything that has been attempted before. Minneapolis and Denver are the cities that are going into the matter most elaborately, and it is not easy to tell which will do the most to give them a good time.

The citizens of Minneapolis, under the lead of the Minneapolis Automobile Club, have raised a fund of several thousand dollars and appointed a committee of entertainment, headed by Col. F. M. Joyce, president of the State Association, to give the tourists a large time. The program arranged is as follows:

Friday, July 16.—Reception of tourists and escort to hotels.

Saturday July 17.—Forenoon—Trip in chartered trolley cars to Minnehaha Falls and Fort Snelling, where a special dress parade and guard mount will be held. Afternoon—Special train leaving Union Station at 2 o'clock for Savage, Minn., where a special matinee race will be held between Dan Patch and Minor Heir, the two fastest horses in the world, at the home of these champions, the International Stock Food Farm. Evening, 8 P. M.—Illuminated automobile parade for the visitors through the city and over the parkways and boulevards. Charles J. Glidden, Frank B. Hower and Gov. John A. Johnson will act as judges to award the prizes to the contestants in the parade.

Sunday, July 18.—9 A. M., automobile trip to Lake Minnetonka; 10 P. M., cruise around upper and lower lakes in chartered steamers; 1 P. M., dinner at Tonka Bay Hotel; 2 P. M., automobile trip through the country near Lake Minnetonka; 4 P. M., Automobile Country Club, where buffet lunch will be served, and a band concert by the Fort Snelling band enjoyed.

Monday, July 19.—Escort by club members of the tourists on the road to Man-

One of the features illustrative of the thoroughness with which details are being executed is found in the fact that the Minneapolis club has ordered 400 very handsome gold and enamel cap badges, one to be presented to each of the participants in the tour, and is also having printed a beautiful souvenir book of views of Minneapolis for distribution, each book properly addressed and stamped ready for mailing to the home of each recipient, after its inspection.

Secretary E. L. Ferguson, of the A. A. A. Contest Board, will be on the tour and will have charge, under Chairman Frank B. Hower, of the arrangements for the tourists during the entire journey.

Speaking of the tour itself, Chairman Hower says: "The arduous character of this year's tour has been much exaggerated, as far as the bad roads to be encountered are concerned. The roads will be no worse than those traversed in former years and, taken as a whole, may be better. The rules are much more exacting. The tour is not to be a wild flight across country, with cars being rebuilt, and no record made of their troubles. The cars will carry observers and travel so closely together that there will be no chance of any one changing a bolt without it being known, to say nothing of putting in a new axle or spring. It will be no disgrace for a car to be penalized under the 1909 rules, and it will be a distinct triumph for all who get through with high scores. There are entries in hand enough for a complete success, and I deplore any criticism of those who are staying out for reasons of prudence or any others."

The Milwaukee Automobile Club's annual orphans' day outing will be held on August 31 or September 1.

Getting Ready for Next Year's Show

It will surprise many people to learn that preparations for the Tenth National Automobile Show, at Madison Square Garden, New York, are already well under way, although the show will not be held until next January. The general plans of the exhibition have been formulated by the Association of Licensed Automobile Manufacturers, and many people have been at work carrying them out for several months.

Contracts are being placed for scores of carloads of lumber, for the special sheet and structural steel necessary for the installation of the show and the protection of the public; factories in various parts of the country are busy making up the required burlaps, buntings, ducks, etc., for covering the walls and floors, early delivery being necessary for these materials, so that they may be subjected to proper fire-proofing processes.

Col. George Pope, chairman of the A. L. A. M. Show Committee (of which the other members are, as last year:

Charles Clifton, of the Pierce-Arrow Motor Car Co., and E. P. Chalfant, of the Packard Motor Car Co.), has again announced that by additional structural work, the floor space will be increased by several thousand square feet.

For the 1910 show, the width of the balcony will be increased so that it and the elevated platform will be supported by a single series of posts, enhancing the artistic value, as well as giving much more room. The elevated platform, which has for some years at A. L. A. M. shows been specially constructed part of the way around the Garden, will at the coming show extend around the whole auditorium, the additional effect and value of which are obvious.

There is very good ground for believing that the hard-working committee, of which Merle L. Downs is secretary, will provide an exposition adequate to the needs of the still marvelously increasing interest and development in the modern pleasure and commercial automobile, the motorcycle and their accessories.

Powell Evans Goes to Attend Road Congress

Chairman Powell Evans of the Touring Board of the American Automo-Association, and who is also president of the Automobile Club of Philadelphia, sailed on the white Star steamer Arabic, Saturday June 26, to attend the international congress of the Ligue Internationale Association des Touristes, which will be held in London, July 7, 8 and 9. Mr. Evans will be the sole representative of the A. A.A. at this important gathering, which includes the largest automobile touring organizations in the world. The A. A. A. made application for membership in the League over a year ago, and its application will be formally acted upon at the coming meeting.

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Mr. Evans is thoroughly conversant with the roads and touring conditions abroad, as he has made a careful study of them on several former European He has devoted probably more attention to automobile touring conditions and the dissemination of accurate information in this country than any other motorist, and his presence as a delegate at the International Touring League is sure to be of valuable aid in broadening the foreign affiliations of the A. A. A. Mr. Evans represents the A. A. A. in the National Conservation Committee, and in this capacity he has been brought into close relations with the government good roads officials and the Geological Survey.

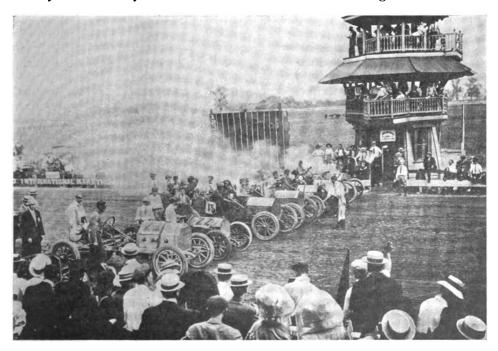
De Palma Makes Track Records at Philadelphia

Despite the calling off of the twentyfour-hour race, the third annual spring race meet of the Quaker City Motor Club, of Philadelphia, at the Point Breeze track, on Saturday, June 26, was a success. Ralph De Palma, the young New York driver, and his famous track racing car, the Fiat Cyclone, reduced the record for the one-mile track, made by Barney Oldfield four years ago, by 1 second. De Palma circled the track in 1 minute 1 4-5 seconds. De Palma also won the ten and fifty-mile events, but the stellar event of the day, the 100-mile race, was won by Harry Lorimer in a Chalmers-Detroit.

The beautiful weather and an excellent programme were the means of at tracting about 5,000 motor enthusiasts to the track on the outskirts of Philadelphia, and they were well repaid for the trip. The most exciting event of the day was the fifty-mile free-for-ail race, which was easily won by the Fiat. Eleven cars came to the start for this event with De Palma at the outside position from the pole. At the pistol shot, De Palma sent his Fiat out like a flash and before the first turn was reached he was leading the bunch, a position which he retained until the end.

Lorimer, in a Chalmers-Detroit, made several efforts to pass De Palma's Fiat during the early stages of the race, but the driver of the foreign car had little difficulty holding him off. On the twenty-sixth mile De Palma went wide of the rail and Lorimer steered his machine into the first position. The sudden turn pinched one of the tires on the Chalmers-Detroit and as a result Lorimer's machine had a flat tire.

It was not until De Palma had gained a lap and a half that Lorimer returned to the track after repairing the tire on his machine. During this time the S.



START OF THE 100 MILES RACE



COMING INTO THE STRETCH

P. O. driven by Laurent, had moved up into second position. De Palma continued to increase his lead, and finished the fifty miles four minutes in advance of the S. P. O., while the latter was closely pressed by Lorimer.

The five-mile race for equipped cars costing under \$1,250 was won by W. M. Crim, in a Mitchell, in 8.164-5, 29 1-5 seconds ahead of another Mitchell driven by H. H. Crowell.

James Ryall driving a Buick won the five-mile event for equipped cars costing from \$1,251 to \$2,000 by a margin of 38 seconds over J. A. Archfield in an Autocar. Lorimer, in a Chalmers-Detroit, finishing third.

It was not until late in the afternoon that the eight cars in the 100-mile race came to the mark. They included two Autocars, two Bergdells, a Chalmers-Detroit, Buick, Stearns and S. P. O.

The Chalmers-Detroit went to the front of the procession at the first turn and remained there until the century mark was reached. During the early miles of the race the Stearns (Harry Goodin) and the Buick (J. B. Ryall) gave battle to the blue car Lorimer was piloting, but they eventually fell to the rear.

A broken steering knuckle put the S. P. O. (Laurent) out of the running in the eighty-second mile, when the latter was in second place. With the retirement of the S. P. O., the two Autocars, which had been close together up to this stage of the race, went into second and third position, in which places they finished behind the Chalmers-Detroit. Lorimer negotiated the 100 miles in 2 hours 2 minutes 6 4-5 seconds.

De Palma did not compete in the main event of the day, declaring he was

satisfied with what he had done in the special mile event, and the fifty and ten mile races. In the latter event, De Palma went to the front at the start and was never headed, although Harry Goodin in a Stearns made desperate efforts to overhaul him. The Stearns finished second, fully one minute behind the Fiat, while the American (Harry Willis) was third.

In the ten-mile race for cars costing \$2,001 to \$3,000, the real race was between the Chalmers-Detroit (Lorimer) and the S. P. O. (Laurent), the former proving the speediest.

The summaries:

Five Miles.—Equipped, under \$1,250—Won by Mitchell (Crim), time 8m. 16 4-5s.; second, Mitchell (Crowell), time 8m. 45 3-5s.

Five Miles.—Equipped, \$1,251 to \$2,000—Won by Buick (J. B. Ryall), time 6m. 44 1-4s.; second, Autocar. (Archfield), time 7m. 22 2-5s.; third, Chalmers-Detroit (Lorimer), time 7m. 23 3-5s.; fourth, Buick (Campbell), time not taken.

Ten Miles.—\$2,001 to \$3,000 chassis—Won. by. Chalmers-Detroit. (Lorimer), time 11m. 34 I-5s.; second, S. P. O. (Laurent), time 11m. 46 I-5s.; second, Stearns (Goodin), time 12m. 23 4-5s.; third, American (Willis), time 12m. 27 3-5s.

Fifty Miles.—Free-for-all—Won by Fiat (De Palma), time 57m. 43s.; second, S. P. O. (Laurent), time 1h. 1m. 51-5s.; third, Chalmers-Detroit (Lorimer), time 1h. 1m. 94-5s.

Special. Event.—100. miles—Won by Chalmers-Detroit (Lorimer), time 2h. 2m. 64-5s.; second, Autocar (Archfield), no time taken; third, Autocar (Brown), no time taken.

Mile track record.—Fiat (De Palma), time 1m. 1 4-5s.

Changes in Route to Delaware Water Gap

An important change in the route from Morristown to Hackettstown and Easton, in New Jersey, which is the main route to Schooley's Mountain and also on the way to the Delaware Water Gap, has been suggested to A. A. A. tourists by President D. M. Perry, of the Warren County Automobile Club, of New Jersey.

Owing to extensive repairs now being made on the road, between Port Colden, one mile east of Washington, N. J., and its junction with the Hackettstown and German Valley Road, about one mile beyond Hackettstown, that section is now closed to automobiles and will probably remain so until October 15. Mr. Perry suggests that tourists going west from German Valley to Washington or Easton should go to the American House in Hackettstown. From there turn to the left and run up Main Street: follow the street out of the town about one mile; pass under the D. L. & W. railroad tracks, thence straight to Rockport, crossing the canal to the right, and then straight to Port Murray, and through Port Murray crossing the canal at that point and over the D. L. & W. Railroad, one mile to Anderson's School House crossroads, then turn to the right, and passing the Anderson Hotel, take the left hand road over the hill for about a mile, then take the first right hand road running half a mile to its junction with the main turnpike, thence turning to the left and going about 500 feet and across the D. L. & W. railroad tracks to the right, then turn sharply to the left and run straight to Washington, about one mile away.

The Secretary of State of Wisconsin will issue in pamphlet form as soon as they can be printed, all State laws pertaining to motor cars and vehicles. the Legislature having made provision for the printing and free distribution of certain classes of laws, including these.

Cincinnati Motorists Climb Fort Ancient Hill

It is estimated that more than 10,000 persons witnessed the annual hill-climbing contest of the Cincinnati Automobile Club, on Fort Ancient Hill, Saturday, June 26. The contest, which was postponed from June 12, was a great success, the spectators being very enthusiastic over the various contests.

Bert Miller, in a Stoddard-Dayton, was the hero of the day. He negotiated the winding hill, which has a grade of 5 per cent. at the base and 15 to 20 per cent. near the summit, in 1 minute 11 1-5 seconds, which was very fast time considering the condition of the road traveled.

Although the contests did not start until 11 o'clock, the crowd began to arrive at the course, which is some distance from Cincinnati, long before that time. The weather was cloudy but very warm, while the rain of Friday had no effect on the road beyond the settling of the dust. Half an hour before the climbs were scheduled to start the excursion trains from Cincinnati began to arrive, and from then until the races were over, at 3 o'clock in the afternoon, Fort Ancient was a very lively place.

The first event for small cars costing up to \$850 was won by the 16 hp. Hup-mobile, which negotiated the hill in 2.20, 24 1-5 seconds faster than its nearest competitor, the 15 hp. Schacht. The time of the Hupmobile was protested, and on another trial it covered the course in 2.22 2-5.

Only two cars came to the mark for the next event for cars costing between \$851 and \$1,250. The E-M-F. (Black) was 2 seconds faster than the Buick (De Witt), which covered the course in 1.451-5. The third event was for stock cars selling between \$1,251 and \$2,000. The 40 hp. Oakland (Bower) was the fastest in this class, his time being 1.22, 7 2-5 seconds faster than his

nearest competitor, Buick (Wilson). Only two Stoddard-Daytons materialized for the next event, for cars selling between \$2,001 and \$3,000, and the machine driven by Wright was the fastest, its time being 1.19 3-5, the best time made so far during the afternoon.

Wright's time did not stand long without being surpassed, however, for in the next event, for cars costing between \$3,001 and \$4,000, Bert Miller piloted his Stoddard-Dayton up the twisting course in 1.11 1-5.

Considerable interest was taken in the next event, which was closed to members of the Cincinnati Automobile Club. Only three starters came to the mark in this event, and they were all Stevens Duryeas. E. A. Conkling slowed up at the top of the hill, smoking a cigar, after traveling up the course in 1.29 2-5. H. G. Pounsford was second, only two-fifths of a second slower than Conkling.

The crowd was disappointed in the failure of several of the big cars to participate in the free-for-all. A Packard, driven by Walter Donnelly broke down shortly after leaving the starting line, while Miller's Stoddard-Dayton also experienced trouble before covering the entire course. H. A. Bower, in an Oakland, was the fastest in this event. He covered the hill in 1.17 1-5.

First Event.—For stock cars selling up to \$850—Won by Hupmobile (Carroll), time 2.22 2-5; second Schacht (Dietz), time 2.24 I-5; third, Maxwell (Kilpatrick), time 2.51 I-5.

Second Event.—Stock cars selling between \$851 and \$1,250—Won by E-M-F. (Black), time 1.43 1-5; second, Buick (De Witt), time 1.45 1-5.

Third Event.—Stock cars selling between \$1,251 and \$2,000—Won by Oakland (Bower), time 1.22; second, Buick (Wilson), time 1.29 2-5; third, Buick (Welbon), time 1.42 4-5; fourth, Buick, time 1.45 1-5.

Fourth Event.—Cars costing from \$2,001 to \$3,000—Won by Stoddard-Dayton



BERT MILLER IN THE STODDARD-DAYTON

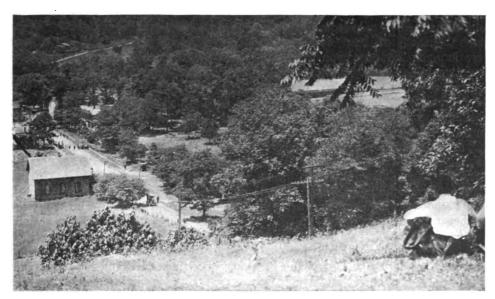
(Wright), time 1.19 2-5; second, Stoddard-Dayton (Anderson), time 1.36.

Fifth Event.—Cars costing from \$3,001 to \$4,000—Won by Stoddard-Dayton (Miller), time 1.11 1-5; second, Palmer and Singer (Junglas), time 1.31 1-5; third, Stevens-Duryea (Ratcliffe), time 1.34; fourth, Stevens-Duryea (Duttenhofer), time 1.38 2-5.

Sixth Event.—For club members, driven by owners—Won by Stevens-Duryea

(Conkling), time 1.2r 2-5; second, Stevens-Duryea (Pounsford), time 1.29 4-5; third, Stevens-Duryea, time 1.36 2-5.

Seventh Event.—Free-for-all—Won by Oakland (Bower), time 1.17 1-5; second, Stearns (Roehme), time 1.20 4-5; third. Palmer and Singer (Junglass), time 1.31; fourth,. Stoddard-Dayton (Miller), time 1.32 4-5; fifth, Stevens-Duryea (Duttenhofer), time 1.33; sixth, Packard (Donnelly), time not taken.



GENERAL VIEW OF FORT ANCIENT HILL

Curtiss Makes Sensational Flight at Morris Park

Glen H. Curtiss, of Hammondsport, N. Y., made an aeroplane flight of about one mile at an exhibition and tournament held by the Aeronautic Society at Morris Park, N. Y., Saturday, June 26. This event was decidedly the feature of the day. It was the concluding number on the programme, coming very late in the afternoon. Many of the spectators left before Curtiss made his trials, but those who were interested enough to remain, felt well paid for having done so.

The affair was somewhat of an experiment on the part of the promoters, as it was the first exhibition and contest of all types of aeronautical devices ever held in this country, and while the admission price was \$1, there were about 5,000 persons present.

Mr. Curtiss made several short flights during the afternoon. His last flight, which proved the most sensational, came as a surprise to most of those present, and provoked a great outburst of enthusiasm.

When his machine started from a point a quarter of a mile from the grand stand thousands of men and women were lounging listlessy upon the lawn, expecting to see merely a straightaway flight, such as he had previously made. As the motor began to purr and the machine came sweeping down the course it was evident from his velocity and altitude that he had started on a longer journey than before, and as the aeroplane darted down past the grand stand, and past the point where he had usually ended his flights, the crowd rose and began to cheer.

Then the machine, checking its speed a trifle, tilted just a little, swerved gracefully to the left and darted in between the judges' stand and the score board.

When it was seen that he had started

in a long flight the crowd went wild with excitement. On sped the aero-plane toward the other side of the track, going so swiftly that an automobile on the track was unable to keep up with it ln a few seconds it had reached the opposite side, and was darting in and out between clumps of trees, but keeping an even keel and a steady, rapid pace.

It was quite dusk, and as it sped away on the further side of the field at times only an occasional flash of the propellers and the constant humming of the motor told it was still in the air. Men with field glasses tried to follow its course, and some in their enthusiasm started pellmell across the field to see where it landed, while three large automobiles went dashing around the course in pursuit of it.

During the entire flight the Curtiss machine was so perfectly in the control of the operator that after following the course of the old race track for a mile it was brought down in a spot previously selected by Mr. Curtiss and within a few yards of the point from which he started. The landing was so far away from the grand stand that only those with automobiles went to congratulate the aviator after his skilful performance.

In addition to the aeroplane flights there was something going on all the The programme opened afternoon. with the performance of a wind wagon. After this some short flights by the Curtiss machine, and then a contest of automobile-towed gliding machines, during which W. H. Martin, of Canton, O., met with quite serious difficulties. The Martin machine is a grotesque type of monoplane, and both he and his wife are said to have made some very creditable flights with it out in Ohio. But on Saturday the flight had a thrilling end. After leaping and lurching along behind the automobile for a hundred yards or more the machine made a sudden plunge into the old race track fence, smashing the apparatus and the fence as well. Mr. Martin was pulled out of the wreck with only a sprained and bruised arm.

After that came an exhibition with parachute jumps. In between the more important events was a "ballonitic race,"

in which men harnessed to small balloons created a heap of merriment by trying to get over a series of hurdles. Then there were kite flying contests and exhibitions of models that flew and a score of other things, all illustrative of the progress of aeronautics.

The society is preparing to hold a series of similar exhibitions during the summer.

Successful Hill-Climb at Ossining

The Upper Westchester (N. Y.) Automobile Club conducted a hill-climbing contest at Ossining, N. Y., on Saturday, June 26, and despite the fact that it was the club's first attempt in the contest line, the affair was very successful. A number of high-class cars participated in the events, which were divided into class according to the selling price of the cars. There were six classes in all, including a free-for-all.

The free-for-all, the principal event of the day, was won by Harvey W. Bell, in a Stanley Steamer. Bell negotiated the hill, which is seven-tenths of a mile long, and has a grade varying from 6 to 12 per cent., in 58 seconds flat, while his nearest competitor was Sherwood in an Atlas, who covered the course in 1 minute 2 3-5 seconds.

The only accident of the day occurred at a sharp curve near the summit of the hill. Sherwood's Atlas skidded off the road and one of the rear wheels crashed into a watering trough, putting the wheel out of commission. Silver cups were awarded to the winners of each class. The summaries:

Class A.—Cars costing \$999 and under—Won by Maxwell (Sickling), time Im. 124-5s.; second, Maxwell (See), time Im. 241-5s.; third, Ford (Foshay), time Im. 342-5s.

Class B.—Cars costing from \$1,000 to \$1,500—Won by Chalmers "30" (Washburne), time Im. 21 3-5s.; second, E-M-F. (Smith), time Im. 29s.; third, E-M-F.

(Almery), time 1m.30 s.; fourth, Buick (Horton), time 1m. 32 2-5s.

Class D.—Cars costing from \$2,001 to \$3,000—Won by Stoddard-Dayton (Crowther), time Im. 143-5s.; second, Chalmers "40" (Washburne), time Im. 231-5s.; third, Atlas (Sherwood), time Im. 42s.

Class E.—Cars costing \$3,001 and over—Won by Renault (Ennis), time 1m. 64-5s; second, Howard (McNeir), time 1m. 234-5s.; third, Thomas (Carpenter), time 2m. 594-5s.

Class F.—Stripped stock cars—Won by Atlas (Sherwood), time 1m. 23-5s.; second, Maxwell (Sickinger), time 1m. 62-5s.; third, Renault (Ennis), time 1m. 154-5s.; fourth, Ford (Wilson), time 1m. 18s.; fifth, Peerless (Ray), time 3m. 102-5s.

Class G.—Free-for-all—Won by Stanley Steamer (Bell), time 58s.; second, Atlas (Sherwood), time 1m. 23-5s.; third, Peerless (Gilhooley), time 1m. 13s.; third, Howard (McNeir), time 1m. 191-5s.

Buffalo Orphans Go to Luna Park

About two thousand orphan children enjoyed the hospitality of the Automobile Club of Buffalo on Wednesday, June 23, when they were taken in 255 machines belonging to the members of the club and other philanthropic automobile owners of Buffalo for a trip to Luna Park, in the up-State city.

The cars containing the children were reviewed by the mayor of Buffalo and then run through some of the beautiful parkways around the city. After a visit to the zoo the children were driven to Luna Park.

New York Now Has a Taxicab Ordinance

After weeks of discussion Mayor Mc-Clellan of New York, on Tuesday, June 29, signed the ordinance regulating taxicab tariffs and management that was recently passed by the Board of Aldermen. Under the new regulations, which go into effect ninety days after the signing of the ordinance, the rates of fare are reduced and certain restrictions are imposed upon the operators of such vehicles.

The official rates fixed by the ordinance are 30 cents for the first half mile or less and 10 cents for each additional quarter mile for cabs seating only two persons. For these cabs \$1 an hour is charged for waiting. For cabs carrying four persons 40 cents is charged for the first half mile or less and 10 cents for each additional quarter mile, with \$1.50 being the rate for every hour the cab is waiting. This reduces the rate of the taxicabs from 50 cents for the first half mile, which is charged for all taxicabs, including both the two and four passenger vehicles.

The city officials decided that the taxicab was a public necessity and that municipal control was the only means of protecting the public. The new measure will put an end to various clever practices which, according to evidence taken, have been indulged in by chauf-

feurs to extort dimes and quarters from the public. The ordinance also provides for the licensing of all chauffeurs driving taxicabs and holds them strictly to account for all abuses and grafting on passengers. A uniform license of \$10 is charged for every special taxicab.

A special corps of inspectors attached to the Bureau of Licenses will see to it that all sections of the ordinance are obeyed. Meters will be inspected every six months to see that they have not been tampered with. Hereafter all registers will be connected with the front wheels and not with the rear or driving wheels, so that they will measure the exact distance covered and not record as distance the numberless times the rear wheels revolve when driving on icy or wet pavements or in the snow. The meters will be sealed, and any persons driving without one will be subject to a fine.

The signing of the ordinance was a great disappointment to the taxicab companies, as they fought the legislation strenuously, contending that the cut of 10 cents is sufficient to drive them out of business, changing their nominal profits at the present time to a loss. It is expected that the taxicab people will test the law in the courts.

To Finish Approaches by September

A. R. Pardington, vice-president and general manager of the Long Island Motor Parkway, informed the members of the Town Board and Board of Highway Commissioners of North Hempstead, at Manhasset, L. I., recently that the approach to the parkway would be finished in September. Mr. Pardington appeared before the boards in support of an application made by the motor parkway corporation for permission to cross over certain streets and avenues in

the town, on the route of the approach to the parkway.

Both boards granted the necessary permission and the corporation will begin construction at once. The western terminus of the approach to the parkway will be directly opposite the entrance to Deepdale, W. K. Vanderbilt, Jr.'s, country seat. These crossings will be from twenty-four to thirty-two feet wide and will be built of concrete and steel.

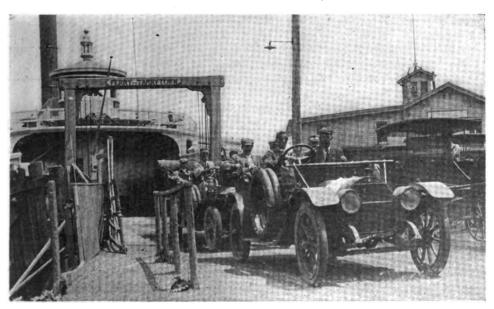
Binghamton Club's Tour a Successful One

The fourth annual run under the auspices of the Binghamton (N. Y.) Automobile Club for the Johnson trophy, started on Monday, June 21, and ended Saturday, June 26, being the most successful ever held by the organization referred to. Although only nine cars entered in the contest, every thing was conducted in fine shape and five of the nine starters returned to Binghamton with perfect time scores after completing the 800-mile journey through New York, Massachusetts, Rhode Island and Connecticut.

So that no partiality will be shown, the officials have decided to put a full report in the hands of some person not connected with the tour and let him decide upon a winner. The five cars which came through the tour with perfect time scores are W. G. Faatz's Thomas, G. Somers White's Matheson Six, Dr. Jeremiah McDonald's Cadillac, C. F. Johnson's Matheson, and Charles F. Sissin, Jr.'s, Pierce-Arrow.

All of the cars were more or less disabled at some stage of the contest. A speedometer on the Pierce-Arrow was fixed at Worcester and the top of a battery box came off en route on the last The Matheson Six arrived in Binghamton with but five cylinders working. The other Matheson car had a broken brace rod and a cyclometer and speedometer out of commission. A lost bolt in the glass front of the Cadillac was replaced with a piece of cord on the second day, and the Thomas car broke a speedometer flexible shaft and the foot brakes were out of commission when the car finished the trip in Binghamton.

Of the other cars that competed in the run, the Thomas owned by R. E. Mix was disqualified on the second day because Mix refused to change observers. Hiram Goldsmith's car and G. T. Rodgers' Locomobile were late at the controls on the first and second days. A small forging on the clutch of H. T.



LEAVING THE FERRY FROM TARRYTOWN TO NYACK

Conant's Packard was broken on the last day of the tour and some time was lost by Conant in having repairs made.

The approximately 800-mile trip brought the tourists through the best touring section of the United States, and as ideal weather favored the travelers, except for one day, when it rained slightly, the trip was a very enjoyable one. The first day's run was from Binghamton to Albany, a distance of 148 miles and the route lay through Oneonta, Worcester, Cobleskill and Schenectady.

The second day's run was a very long one, the tourists being required to travel from Albany to Boston, Mass., through Lenox, Springfield and Worcester. The route lay through the Berkshire Hills and the scenery was very picturesque, though the roads were not in as good

condition as those in the Catskill Mountains, through which the tourists traveled on the first day.

Wednesday, the third day of the run, was spent by the Binghamtonians sight-seeing in Boston, and on the following day they traveled to Hartford, Conn, a distance of 130 miles, via Providence, R. I., Plainfield, Conn., and Willimantic. One hundred and forty-four miles were negotiated the following day on the trip to Newburg, N. Y., via New Haven, Bridgeport, Port Chester, Tarrytown and Nyack.

The last day's trip brought the tourists back to Binghamton after traveling 170 miles from Newburg, via Kingston. Delhi and Unadilla. More than 490 miles of the trip were over macadam roads and included some of the famous Massachusetts highways.

Philadelphia Club Holds Secret Time Run

One hundred and fifty motorists participated in the second sociability run of the Century Motor Club, of Philadelphia, held on Sunday, June 27, over a course 78.1 miles to Sugartown, Pa., and return.

Henry Goldthorp piloted a Berliet car over the course closest to the secret time set by the president of the organization, Fred J. Hartman, and was awarded a beautiful silver urn. Goldthorp covered the distance only fourteen minutes outside of the 5 hours 23 minutes set.

There were four checking stations on the course, one at Bryn Mawr, 76 minutes; another at Sugartown, 55 minutes; a third at Norristown, 117 minutes, and the last at the Century club house, 75 minutes. I. E. French, in a Pullman, and William A. Rouss, piloting a Peerless, were tied for second place with fifteen points penalty.

Fourth place was won by Frank Yerger, driving a Studebaker, who had 16

points penalty. Yerger earned the admiration of the contestants when he towed one of the competing machines for twelve miles over the hills between Phœnixville and Collegeville.

The initial run of the club brought the contestants to a hotel, but in the event on Sunday the motorists stopped at the Sinquette farm, near Sugartown. where a lunch was spread beneath the trees.

The run to Sugartown was made via Darby, Yeadon, Lansdowne, Llanerch, Coopertown, Haverford, Bryn Mawr and Paoli. This route brought the contestants through a very picturesque section of the Keystone State and at the same time the rain made the run a sort of endurance affair. After lunching at the Sinquette farm, the motorists started on their trip to Philadelphia via Malvern, William's Corner, Phænixville, Collegeville, Eagleville, Norristown, Plymouth Meeting, Barren Hill and Chestnut Hill.

Many Cars in Annual Scottish Trials

The annual automobile trials of the Scottish Automobile Club started on June 14 from Glasgow, Scotland, and were completed six days later. At this writing full accounts of the affair, which was the principal automobile event in the British Isles, have not yet reached America.

Sixty-eight cars, including two American cars, were entered in this year's event, and they were divided into eight classes, according to the price of their chassis. As in previous trials, the contest was of the non-stop run type. Stops were allowed for tire repairs without penalizations, except when the total number of stops from this cause exceeded one hour.

The trials required the tourists to travel 1,007 miles and a number of hill-climbs were incorporated in the run. Some of the hills included Cair O' Mount, distance 2 miles; Clash Hill, ½ mile; Little Sruinard Hill, ¼ mile; Glendoe Hill, 980 feet; and Fintry Hill, 1 mile, 694 yards. Besides being penalized for engine stops, the machines were also penalized for arriving too late or too early at controls. Special medals were awarded for the hill-climbing ability of the cars, fuel consumption, etc.

Sixty-five of the sixty-eight entries came to the starting point in Glasgow on the morning of June 14, and commencing with the big cars the machines were sent on their 181-mile journey to Aberdeen at one minute intervals,

starting at 7 o'clock. After leaving Glasgow behind, the cars entered the noted picturesque Scottish highlands, and except for the dust the trip was an enjoyable one. There were several hills climbed on this day that tested to the utmost the nerves of the drivers. The first one was Amulree Hill, an incline having a double hairpin turn. This hill has been a terror to contestants in previous trials and several machines fell out of grace with their owners at this point this year. The descent from Amulree Hill was more dangerous than the climb and the brakes on more than one car suffered.

After the climb up Cairn o' Mount and a run through pleasant but hilly country, all of the cars arrived at Aberdeen, though some were late. Nine cars were reported as having met with trouble on the road the first day.

The second day's run brought the contestants to Inverness after a trip through country similar to that passed through the first day and resulted in several more cars falling from the non stop division and two cars withdrawing from the contest. They were the Australian Daimler in class G, which had ignition trouble and a broken bracket, and the class A Chenard-Walker. These were the first cars to withdraw from the contest.

On the following day the cars left Inverness in gloomy weather for a trip of 173 miles through the wildest Highland country.

Gave 35 Employees a Fine Outing

Worcester, Mass.—As the guests of General A. E. Bliss, president of the Malden Automobile Club and general manager of a string of Eastern Massachusetts gas and electric companies, thirty-five city clerks from the vicinity of Boston stopped here for dinner Saturday at the Worcester Automobile Club. From here the party went to Springfield, passing the night there and continuing Sunday to Greenfield and Fitchburg, returning to Boston Sunday night by moonlight. There were seven automobiles used.

Declare Ford No. 2 Winner of Seattle Contest

The New York-Seattle contest for the M. Robert Guggenheim trophy, which caused so much discussion and friction among automobilists, now goes down into history with the Ford car No. 2 as the winner of the trophy and the \$2,000 cash prize.

Although the Ford No. 2 arrived in Seattle fully a day in advance of the second car, the Shawmut, it was not officially declared a winner until Tuesday, June 29, six days after its arrival at the scene of the Alaska-Yukon-Pacific Exposition. This delay was due to a protest on the part of the Shawmut manufacturers, who claimed that the winning Ford was not entitled to the trophy and prize money for the following reasons:

First—At Fort Steele, Wyo., where the wagon bridge was washed out, the two Ford cars were allowed to cross on the railroad bridge by virtue of special permits, while the Shawmut was refused access to the bridge, being delayed sixteen hours.

Second—That the Ford No. 2 broke the rules regarding the actual driving. In the Snoqualmie Pass, it is alleged, an employe of the Ford branch in Seattle met the racer and proceeded to get into the driver's seat and operate the car. Later, the regular driver who had sent the

car across the continent went back at the wheel.

Third—That Ford No. 2 arrived in Seattle with a new axle, one that had not been stamped in New York City, thus breaking the rules against putting in new axles if the old one had worn out.

After due consideration of these charges, M. Robert Guggenheim, donor of the trophy, and referee of the contest refused to sustain the protest and awarded the prizes to the Ford. The second prize of \$1,500 went to the Shawmut car, which finished on Thursday, June 24, at 5:30 in the morning.

The Ford No. 1 arrived in Seattle third, but was disqualified for replacing an axle in the Snoqualmie Pass, and consequently third place went to the Acme, which did not finish the 4,300 mile trip until 2:30 P. M. on June 29. The crew of the Acme took things easy after they saw that it was impossible for them to "finish in the money," but the trip through the Cascade Mountains caused them considerable delay.

The Itala car quit the contest on June 23, at Denver, Colo., after having met with a serious accident near Kansas City, Mo. The Stearns car, the six entrant in the contest, did not leave New York until several days after the others.

To Run Cobe Race in 1910

Despite the fact that the recent Cobe and Indiana trophy races held over the Crown Point-Lowell course in Indiana caused the Automobile Club of Chicago a loss of \$20,000, it was announced at the dinner given to the winning drivers, mechanicians and officials connected with the races that the contests would be repeated in 1910.

Most of the deficit attached to the races was caused by the preparing of the roads for the two events, but next year the officials expect to eliminate a good part of this expense. The an-

nouncement that the races would be run again was made by Ira M. Cobe, president of the Chicago Automobile Club and donor of the Cobe trophy, for which the big cars raced on June 19. In speaking of the race Mr. Cobe said:

"Gentlemen, there will be a repetition of the Cobe and Indiana trophy races next year. We will begin earlier than this year on our plans for 1910 and make the races so popular that more than half a million people will surround the circuit during the running."

Boston Clubs Discuss Amalgamation

Efforts are being renewed by Boston motorists to bring about the consolidation of the Bay State Automobile Association and the Boston Motor Club. Attempts were made to amalgamate these two Hub organizations earlier in the year, but terms could not be agreed upon and the negotiations fell through.

Terms upon which a union of the organizations would be considered were drafted at a joint meeting recently of the boards of directors of the two organizations and the following terms were recommended for adoption:

- I. That the Bay State Automobile Association and the Boston Motor Club merge into a third club.
- 2. That the so-called third club be known as the Bay State Motor Club.
- 3. That the members of both organizations who have passed their respective membership committees be admitted to the third club.
- 4. That a committee of two from the Bay State Automobile Association and a

like committee from the Boston Motor Club, these four to select the fifth member, act as a committee on a nomination of officers for the new club.

- 5. That this committee consist of A. B. Henley and R. R. Ross, representing the Boston Motor Club; C. F. Whitney and C.
- I Campbell, representing the Bay State Automobile Association, these four to select the fifth member.
- 6. That a committee of two from the Bay State Automobile Association and that a committee of two from the Boston Motor Club, these four to select a fifth member, act and report on the new bylaws for the proposed club.
- 7. That that committee consist of E. A. Gilmore and A. P. Teele, representing the Boston Motor Club; J. S. Hathaway and F. A. Hinchcliffe, representing the Bay State Automobile Association, these four to select the fifth member.
- 8. That the assets from both clubs be placed in the treasury of the third club.
- 9. That it is the unanimous opinion of the two boards that the dues for the next season be left till the next annual meeting of the new association.

Erection of Sign Posts Made Obligatory

One of the last laws signed by the Governor of Wisconsin is Chapter 405, repealing the statute making it optional with townships to erect sign or guide boards, and creating a new statute, which says:

"The town board of each town in the State of Wisconsin shall cause to be erected and to be kept in good repair, suitable and appropriate guide boards along all main traveled public highways within their respective towns. The expense of the erection and keeping in repair of such guide boards shall be paid out of the treasurey of such towns. Such guide-boards shall be erected between May 1 and Nov. 1.

"Such guideboards shall be securely attached at the upper end of a post set in the ground, and shall when firmly set project seven feet and six inches above the ground. There shall be

painted upon such guide boards in plain black Roman letters not less than 2½ inches high, the names of adjoining or important towns or villages to and through which said public highway leads, the distance in miles of such town, city or village from such guide post and any indication of direction which will be helpful to the traveler.

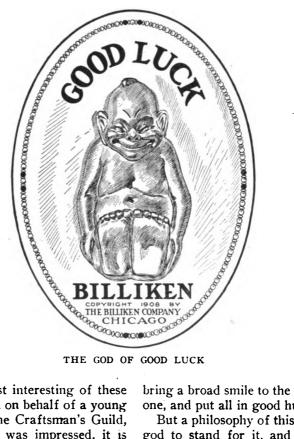
"If any person shall deface, injure or destroy any such guide board and shall neglect for the space of ten days thereafter to repair and restore the same to as perfect a condition as it was previously, he shall forfeit \$10 and also shall pay as damages to such town, three times the cost of repairing such guide board, and it shall be the duty of every town supervisor who has knowledge that any such injury has been done to make diligent effort for the detection of the person.

The Gay Little God of Motor Cars

As seven cities claimed the honor of having given birth to Homer, so there are many claimants for the honor of having created or originated Billiken, the little Japanese god who has created such a furore—the same who sings:

I am the God of Luckiness. Observe my twinkling eye-Success is sure to follow those Who keep me closely by; I make men fat and healthy Who were quarrelsome and thin; I am the God of Luckiness. My name is Billiken.

part of the metropolis of the Middle West. It seemed to her that it was high time somebody took the matter in hand and inaugurated a change for the better. There was great need, she believed, for a philosophy which gave out good health, good will, good friends and good times. She wanted a philosophy which would breathe common sense and prosperity, one which would once again bring back the people to good cheer and to better living; one which would kill the blue devils, dispel the grouch and



One of the most interesting of these claims is put forth on behalf of a young girl member of the Craftsman's Guild, in Chicago. She was impressed, it is said, with the depressing spirit of the blues, which seemed to be pervading not only the whole atmosphere of the Guild, but also the business channels of a great

bring a broad smile to the face of everyone, and put all in good humor.

But a philosophy of this sort needed a god to stand for it, and in about five minutes the young woman had carved him out-Billiken! The quaintest, chubbiest, happiest nude little youngest you ever saw. He sits on his throne and

does absolutely nothing but wrinkle up his funny little face and grin. There is something, half-devil, half saint, about that grin of Billiken's, and the one great thing about it is that it is contagious, fearfully contagious. He is called "The God of Things as they ought to be," and just now he has struck, and struck hard, the favorite philosophy of the day; one which we were all waiting for—the spirit of resumption and prosperity.

At present Billiken is a prime favorite with motorists, having been put out in a bas-relief to go on the front of the radiator. Hence the couplets:

If you set me on your car,
You may travel near and far
Fully warranted 'gainst all forms of disaster
Nails will not cut through your shoes
You can speed, just as you choose
Every policeman will beg you to go faster.

I'm the God of Motor Cars
I control the Luck Stars
Breaks and accidents no longer will assail
you

Place me on your engine hood And I'll bring no end of good For a hundred years I promise not to fail you.

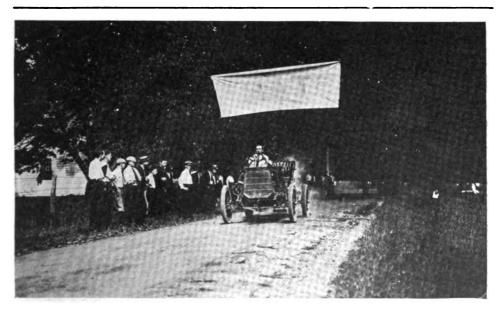
Billiken is sold to motorists by the Monash-Younker Co., 203 South Canal Street, Chicago.

Speed War On Up-State

The patrolmen recently appointed to prevent automobile speeding on the Glens Falls-Lake George, N. Y. State road reported to the Queensbury Town Board that they had stopped between fifty or sixty cars a day during one week, which have exceeded the State speed limit of twenty miles an hour.

No arrests have been made as yet,

but as soon as the officers begin to hold up second offenders they will be taken into custody. The Albany Automobile Club has notified the town authorities that it will fight any attempt to prosecute any of its members. Several speed traps are along the road and the police threaten to arrest all who exceed the speed limit, after having been warned.



CORBIN CAR WINNING HILL CLIMB AT MERIDEN, CONN.

Reeves Sees Through Rose-Colored Glasses

Alfred Reeves, the energetic and wide-awake general manager of the American Motor Car Manufacturers' Association, recently returned from one of his periodical swings around the circle, during which he visited most of the factories of the western members of his association. What he saw convinced him that outputs will increase enormously in 1910, as one result of the splendid year nearly all makers have had. In breezy, entertaining fashion Reeves sets forth his views as follows:

On the situation at the factories Mr. Reeves said:

"At Cleveland, Paul Gaeth is making Gaeth cars in his usual conservative way, turning out a limited number, carefully made. There will be comparatively few changes on the 1910 Gaeth as compared with this year's car. Mr. Gaeth is adding to his line a single cyllinder commercial wagon for light delivery work.

"At Dayton, O., I was astounded at the size of the Dayton Motor Car Company's plant, which covers three city blocks. A new six-story addition to the factory is being put up that will be 140x110, supplying almost 1,000 square feet more of floor space. I doubt whether any concern in the country makes more of a car than do the Stoddard-Dayton people. They even make their own axles, springs, frames, and aluminum castings. Something like \$60,000 worth of new machinery is being installed that will make for a greater production in 1910. The Dayton Company is famous for their care of agents, and Mr. C. C. Stoddard, the general manager, says the same agent policy would be continued next year. As indicating the size of the plant, I might say that there are 1,600 men employed, and that sixty men are engaged in the inspection and testing department.

"The new Courier car, selling at \$1,000, being marketed by a new \$200,000 corporation in Dayton, is practically an offshoot of the Dayton Motor Car Company, for in it are most of its officers and a number of its employes. The car will follow the lines of the Stoddard-Dayton car, but on a smaller scale. It will be high class throughout.

"Another concern in Dayton which is making progress is the Speedwell Motor Car Company, which has planned a production of 700 cars for next year. They are putting up factory additions, and R. D. Schenck, the president, tells me most of the product has been spoken for by agents.

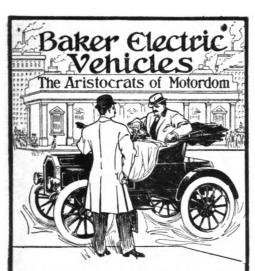
"Incidentally I was told in Dayton of a new taximeter that has many advantages over taximeters now in use. Not alone does it register the distance, amount of fare and supply similar records, but it turns out a slip just like a cash register, giving the distances, the number of the cab, the time and the fare. This is given to the patron when he leaves the cab.

"Dayton has been wildly excited over the Wright brothers, and gave them a reception such as should be given to men whose names in the future will figuer with those of Bell, Morse and Edison.

"Cincinnati has been a great city for carriage manufacturers, and at least ten big concerns have announced their intention of turning out motor cars. The majority of them will make cars of the buggy type, but the Jewel Carriage Company is putting out a high-grade four-cylinder car to be known as the Ohio, that should become a factor in the trade.

"From Cincinnati I visited the giant plant of the Maxwell-Briscoe Motor

Automobile Topics Tour



THE "BAKER" name is a big asset to the dealer, for it is identified with all that is best in electric automobile construction—a fact that is of great material help in selling.

Baker Electric Vehicles are made in the great Baker factory—the largest of its kind in the world—where quality, durability and efficiency are built into each Baker.

A Few Baker Features Are

Unequaled economy in the use of Electric Current.
Batteries in series at all speeds.
Longest life of the battery.
Quiet center-chain drive.
Perfect alignment under all condition...
Lowest transmission loss.
Exide batteries standard equipment.

These and many other points of superiority make the Baker the standard of electric vehicles.

We Want Reliable and Progressive Agencies

in every city where we are not already represented. Send for Catalog describing the many popular Baker Models:

Gentlemen's Runabout—(The Electric sensation of 1909.)

Lady's Coupé—(roomy four passenger car.)
Queen Victorias, Landaulets, Broughams,
Surreys and Commercial vehicles.

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New York Salesroom, 1788 Broadway. Chicago Salesroom, 1714 Michigan Ave.



This Car Costs Little to Keep

It's a car you can afford—capable, plenty of power and speed, yet remarkably economical.

There's no other car,

carrying as large a load, that will go so far in a day on so little gasolene. No other car of the same size so saving of tires.

The first Overland

sold has been on the road day in and day out, summer and winter---seen far harder service than you'll probably ever give your car--yet the cost for repairs has been scarcely worth counting, and today it's as strong-going, smooth-running, noiseless, and easy-riding as any new car.

It is a car you can keep

always on the go, all day-long, day after day, without trouble or repair bills—a car always ready and reliable under all conditions, usual or unusual, with plenty of reserve power for hard climbs and heavy roads.

4-Cyl., 30 H.P. Planetary Trans-Roadster \$1250 4-Cyl., 30 H.P. Planetary Trans-5 Passenger Tonneau \$1400 4-Cyl., 30 H.P. Selective Trans-Touring Car . . . \$1500 6-Cyl., 45 H.P. Selective Trans-Touring Car \$2250

Choice of bodies in each of these models.

Let us give you the name of the dealer in your territory so you can have a prove-up demonstration.

Overland Automobile Co. Indianapolis, Ind.

Loose Sheets of This and Previous Sections May be Obtained by Remitting Ten Cents for Each

NEW YORK TO LAKE MAHOPAC

One of the most enjoyable short runs out of New York is the subject of this week's tour. Lake Mahopac is a pretty sheet of water, reached over roads good for the most part and through a section of considerable scenic beauty. The details follow:

From Columbus Circle go up Broadway to 155th Street, where turn right and over viaduct into

Central Bridge (5.2 miles).

Straight over bridge connecting with trolley cars on Jerome Avenue. Follow trolleys to end of trolley tracks, immediately passing Empire City race track at

Yonkers Avenue (13.1 miles).

Straight ahead over Yonkers Avenue and onto Central Avenue (continuation of Jerome Avenue), running through Greenville to Hart's Corners, where turn right. Immediately beyond, turn right and then left, taking right fork 50 feet beyond, ascending long hill. At end of road turn right. Straight ahead to trolley line at foot of hill, where bear left across car tracks into the White Plains-Tarrytown road to Four Corners just beyond

Elmsford (23.8 miles).

Turn right at corners and about two miles beyond, at "T" in road, turn right over bridge, taking left at fork. Straight ahead over R. R. tracks, immediately be-

yond which bear right at fork through Four Corners,

Briarcliff Manor (32.3 miles).

At fork bear right. Straight ahead, keeping left to

Pines Bridge (39.3 miles).

Turn first left after crossing bridge. Straight ahead to "T" in road at upper west end of Croton Lake, where turn right and straight ahead to end of road. Bear right to fork, where keep along same past

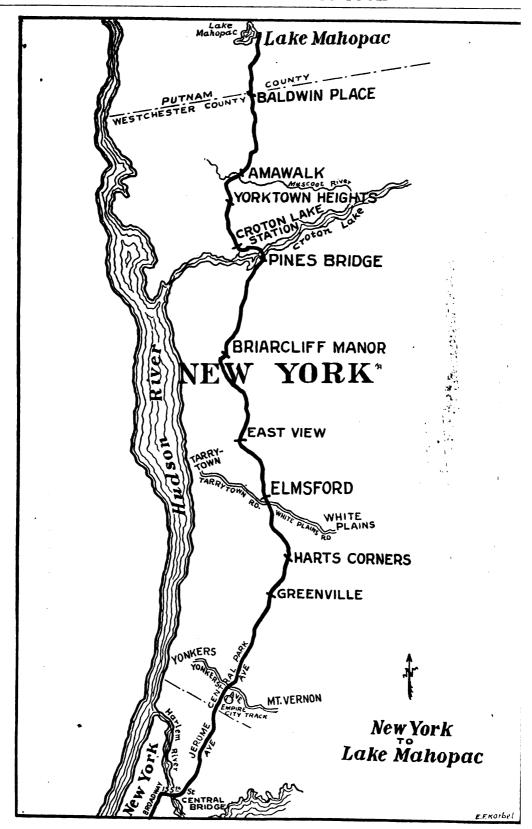
Yorktown Heights Station (43.5 miles).

At end of road beyond turn left, but at next fork keep right. After crossing concrete arch, swing right and then straight ahead over R. R. tracks at

Amawalk Station (45.1 miles).

Direct to "T" in road at Baldwin Place, where turn left over R. R. tracks to next fork, where keep right. At irregular corners again turn right, direct to shore of Lake Mahopac. Bear right and follow close along lake to R. R. station of

Lake Mahopac (54 miles).





1910 Announcement

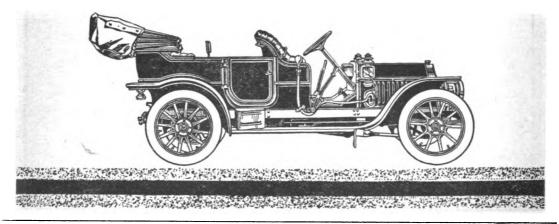
The clearest evidence of the perfection of Peerless construction is shown in the fact that for the past four years only minor changes have been made, each successive season's output being a carefully revised and refined edition of its predecessor.

Peerless has never been a car of single features—its charm hies in its perfect unity mechanically, its rich simplicity of contour and appointments, its easy riding qualities and the degree to which noise has been eliminated.

Models 27 and 28 Touring Cars, Limousines, Landaulets, Roadsters

Catalog E Describing the New Models Now Ready

The Peerless Motor Car Company 2463 East 93rd Street, Cleveland



Company, at New Castle, Ind. It won't be very long before the name of that town will be changed, for the Maxweil-Briscoe people have the biggest factory in town and are factors in the general life. There is a Maxwell amusement park, a Maxwell ball team, a Maxwell gymnasium and a Maxwell-Briscoe band of forty pieces which would be a credit to any community.

"Mr. J. B. Meyers, the general superintendent, stated that 1,600 men are now on the pay roll and there is great difficulty in housing the help. Houses have been put up at an astonishing rate, but upon my visit there at least 200 men were living with their families in tents.

"The manufacture of Maxwell cars is ideal, for the raw material goes in at one end of the factory and comes out a finished product at the shipping platform. Cars are coming through at the rate of forty a day, but the factory is far behind in its orders. A new addition is being put up, 721x310, and another 721x60. A third floor is also being added to the present factory, all of which is expected to result in a greater production of cars next year.

"At Anderson, Ind., the Buckeye Manufacturing Company stated that 75 per cent. of their product this year had been sold to the farmers and that they are planning for 1,500 cars for next year. They say the agricultural people have more money than at any other time in their history and look upon the automobile, not as a luxury, but as a necessity for individual transportation. The friction drive Lambert has appealed to them strongly owing to its simplicity. The same design of car will be made next year.

"Claude E. Cox, who designed the Overland, is now chief engineer of the Inter-State Automobile Company, at Muncie, Ind. They plan a production

of 2,500 cars for next year. They now have a building 440x140 and will build an addition equally as large. The car is of 35 hp. F. E. Hart, a successful business man of Muncie, is president of the Inter-State Company, and D. W. Henry, sales manager.

"Indianapolis manufacturers accepted an invitation of H. D. Smith, our chairman, for a luncheon at the Columbia Club on my visit to that city. In attendance were John N. Willys (Overland and Marion), A. C. Newby (National), Carl Fisher (Empire), Herbert Rice (Waverley), and H. O. Smith (Premier). We had an interesting discussion of automobile matters generally and the next day I visited the various plants.

"One of the sensations in the town has been the advancement of the Overland under the leadership of John N. Willys. They now have five factories working to get out the cars promptly and keep agents supplied. They will have two new buildings near the present Overland factory, each 368x80, two stories high. A production of 10,000 Overlands is planned for next year and 1.000 Marions. Overlands will be turned out at the new Pope-Toledo plant at Toledo, as well as in Indianapolis. There will be three modals of Overlands next year.

"Mr. Willys has gone to Europe to look over the trade conditions there, but will return early in Spetember. The sales end of the business is now being looked after by F. A. Barker, formerly with the Dayton Motor Car Company. There are now 1,200 men working for the Overland Company at Indianapolis and 400 on the pay roll at Toledo. The company has been unusually successful, not alone in a financial way, but in getting out a big production, and aiding their agents in making money.

"That more and more concerns are making their own parts, is evidenced by what I saw in the American factory, which I visited with Mr. Longaker. Almost the entire car is being made under one roof, instead of depending upon parts makers for supplies. The American Traveler with its under-slung body is growing more and more in favor, and the production is being increased to keep up with the demand.

"Howard Marmon's genius in motor car construction is evidenced in the small Marmon of this year, which has met with such favor and which will be continued with comparatively few changes for 1910. The motor is of 32 hp., and while it is of the small type now so popular, the material and construction throughout is thoroughly high grade. The company will have two machines in the Glidden Tour.

"The Premier plant is working nights, for H. O. Smith is a firm believer in caring for agents by giving them cars when the demand from the public is strongest. The Premier had had an unusually successful year in contests, and three of them will be entered in the Glidden Tour in addition to the Premier that will act as an official car. Additions will be made to the plant next year, although Mr. Smith is inclined to grow conservatively rather than with a rush.

"A. C. Newby, at the National plant, showed me plans for a new addition that will supply 40,000 square feet of space. The present line will be continued next year with some slight changes, the cars having made good in every way. There will be a small four and a big four, and a little six and a big six.

"The Marion plant is busy turning out Overlands as well as Marions, beoing controlled by the Overland people. The Marion's performance in the Chicago race was a matter of much favorable comment.

"The Empire is the latest car in the field, being the production of R. H. Hassler, backed by a company in which A. C. Newby and Carl Fisher are interested. The old Mohawk Cycle Works factory, on the outskirts of Indianapolis, has been taken and a thousand cars will be put through for 1910. The motor is $3\frac{1}{2}x4$, cast en bloc. A runabout body is fitted, $32x3\frac{1}{2}$ tires, and the price will be \$800.

"St. Louis is a busy automobile town just now, the three companies there being the Moon Car Company, St. Louis Car Company, and Dorris Motor Car Company. Next year the horse-power of the \$3,000 Moon car will be increased from 35 to 40, and in addition the company will make a \$1,500 car rated at about 30 hp. The company has had an unusually good Western business, incidentally selling more cars in the State of Texas than in any other section of the country.

"A new company will take over the St. Louis Car Company, which will discontinue the American Mors to make a new six-cylinder car of American design with a motor of 50 hp. The general manager is H. E. Walton.

"The Dorris Motor Car Company continues to turn out high grade cars and each year has seen a decided increase in its business. Manager Krenning is a believer in the one chassis idea and the 1910 car will be a refinement of the same model which they have used for the past three years and which has proven so satisfactory. It is of 30 hp. and sells at \$2,500.

"At Peoria I noted a decided increase in the size of the factory of the Bartholomew Company, makers of the Glide car. The plant will be aided in its production next year by a new factory, plans being under way for the

taking over of the old St. Louis Carriage Company plant. Mr. Batholonew, besides his interest in the Bartholomew Company with his son, A. Y. Bartholomew and G. G. Godfrey, is president of the Avery Company, one of the largest manufacturers of agricultural machinery in the country. The Avery plant is a revelation in the manufacturing line and many of its methods are being incorporated in the automobile plant. The car next year will be a refinement of this year's 45 hp., with a motor 434x5, the point being made that the satisfactory car of this year required little change.

"In Chicago, after attending the Chicago races, which were highly successful from a managerial point of view, although possibly a loss financially, owing to the poor support supplied by Chicago motorists, I visited the Holsman Automobile Company. This company is far and away the leader in the motor buggy business and its business is constantly on the increase. It has had a phenomenal year and is making great preparations for 1910.

"At Chicago, I was told that the International Harvester Company is planning to produce 10,000 buggies next year, while Sears, Roebuck and Company, the mail order house, gave an order recently for 10,000 axles to be used on motor buggies for 1910.

"Moline, Ill., is getting to be one of the leading automobile cities of the country, having three factories in operation. At the Midland plant they were preparing a car for the Glidden Tour, and making arrangements for next year's trade. A. E. Montgomery stated that the company has been favored with an excellent Southern trade, particularly in Texas, which seems to be coming to the front as an automobile State.

"At the plant of the Velie Motor Vehicle Company, I found a factory, 80x

220, four stories high, with an army of workmen building an addition that will double the present capacity. The present car will be continued next year.

"At the Moline Automobile Company's plant, W. H. Van Der Voort stated that the last of the product would be shipped from the factory by July I and that work is now under way on the 1910 models. He plans to continue his care of agents, supplying cars instead of promises, and believes strongly in supplying a sufficient number of cars to enable an agent to make a profit on his year's business. Additional help is being taken on and more room added for manufacturing purposes, which will permit a 50 per cent. increase in production next year. Three roadsters will be entered in the Glidden tour for the Hower trophy, and they will not be of the untried sort, for they were on the road a month ago and are being put through a series of severe tests. Besides their high-class four-cylinder car, the company makes a \$1,500 fourcylinder machine especially for the country trade. It has a road clearance of eleven inches.

"The American Simplex car, made at Mishawaka, Ind., is the only high-powered two-cycle car built in this country. It is equipped with a motor of 50 hp. at 900 revolutions. A feature of the car that Messrs. Graham and Gulick showed me was a carburetter of their own design, which vastly reduced the gasolene consumption, which has often been made a point in cars of the twocycle type. The company has a well equipped factory and is building an addition that will permit about a 50 per cent. increase in the production for 1910. One of the American Simplex cars will be a competitor in the Glidden

"To show his faith in the reliability and continuous running qualities of the

buggy type of machine, W. H. Mc-Intyre, the manufacturer of the Mc-Intyre car at Auburn, Ind., has entered a machine in the Glidden tour. expected by continuous running to make the same average speed as cars of greater power. It will be the only one of its type in the tour. equipped with a two-cylinder, air-cooled motor and is shod with solid tires. Incidentally, Mr. McIntyre has been a resident of Auburn for forty years, owns the daily paper there, and is interested in a number of its industries. His carriage factory turns out 30,000 to 40,-000 horse-drawn vehicles annually.

"No factory that I visited is more modern than the plant of the Mora Motor Car Company at Newark, N. Y. It is light and clean, with high ceilings, and Mr. Mora insists it all helps the men to turn out good work. All the 1909 cars will be out by July 10, and will be delivered immediately to customers through the agents. Work is now under way on the 1910 product, which will be new in several features, although carrying most of the features that have made the Mora car so successful during the past two years. The horse-power of

the four-cylinder car will be increased from 24 to 35. Among the other features is the casting of a ledge on the engine base reaching to the radiator, which, combined with the original Mora under-pan idea, makes a complete covering of the under part of the machine, insuring a clean motor and clean working parts.

"S. H. Mora, owing to his long experience as sales manager of the Kodak Company, thoroughly understands the handling of agents, and appreciates the necessity of keeping them supplied with cars at a time when the cars are in the greatest demand. His arrangement with agents is such that almost all of them receive an allotment of cars sufficient to make a substantial profit. This makes their loyalty to the company an asset of exceptional value.

"Great preparations for next year in the way of additional buildings and the demand for additional help, to say nothing of the betterment of cars, both in material and construction, coupled with the reports of agents asking for 1910 cars and territory, enables even the poorest prophet to declare for a great selling year in 1910."

Had More Cars than Were Needed

Worcester, Mass.—Worcester's annual Orphans' Day, given by the Worcester Automobile Club, was a great success this year, more than 300 orphans from the various institutions of the city being given an afternoon's ride and an entertainment by the club. Every car was loaned by a club member, and so heavy were the contributions that many cars were sent back, there being too few children to fill them. Nurses and sisters of the institutions accompanied the children.

At Woodland Park an entertainment and the use of the park was given the children by the management. When out on the road, the machines separated, going in all directions so that there was no dust to annoy the little folks. Merchants presented each child with an American flag, a horn and plenty of candy and sweets, so that to them the outing was most enjoyable.

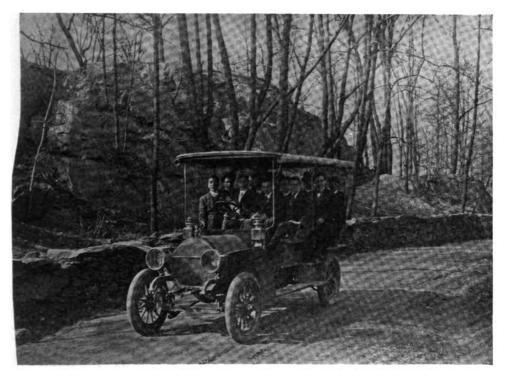
As a result of several accidents which have occurred on the Sacramento-Yolo bridge, due to automobilists speeding, Supervisor Ahern, of Sacramento, Cal., has appointed a committee of one to look into the matter of motor cars speeding while using the bridge.

Motor Stage Solves Transportation Problem

It is well known that there are few roads in the Adirondack regions through which automobiles can pass with any degree of certainty, and when the proposition of starting a motor stage line through the bad mountain roads of a section of the country between Forestport and Lake Honnedaga, a distance of twenty-two miles,

These cars, from the very start, proved that they could negotiate the deep sand and almost impossible rough roads and do the trip on schedule time. The cars now cover the distance in two hours without difficulty, as they have been doing for the past six weeks.

The larger of the pair is a 35 hp. Locomobile chassis fitted with a twelve-



EN ROUTE TO LAKE HONNEDAGA

many people acquainted with the situation thought the proposition impracticable and well nigh impossible. However, members of the Adirondack League, an organization which has three club houses on a chain of lakes, decided to make experiments in hopes of providing a means of transportation for members from the railroad station of Forestport to the lake, two Locomobiles were purchased for the purpose.

passenger body, while its team mate is a regular seven-passenger touring car. These are now being driven by the league's regular guides, who have been taught to handle them in expert manner. Although the general run of the road is covered with sand six to eight inches deep, both of the machines pull equally well and it is not necessary for passengers in the big car to "get out and push" at any stage of the game.

This car has removable rear seats for baggage, a goodly load of which can be readily carried.

The members who make use of this line are delighted with the enterprise, for it means that they now can get about from one lodge to another within a couple of hours, whereas it formerly meant a long, tiresome, inconvenient half-day ride by horseback or a strenuous paddle in a canoe. In some cases walking was resorted to.

Texans Race Before a Large Crowd

The members of the Corsicana (Tex.) Automobile Club held a race meet at the local fair grounds on June 21, and a large crowd witnessed the six events which constituted the programme. The summaries:

First Event.— One-eighth mile on reverse—Hupmobile (Waddell) first, time 0.23.

Second Event.—Five miles, for cars listing from \$400 to \$800—Hupmobile (Wad-

dell) first, time not announced; Brush dell) first, time not announced.

Third Event.—Five miles for motorcycles free-for-all—Excelsior (Newton) first, time 8.37; Indian (Murphy) second, time not announced.

Fourth Event.—Five miles against time —Jackson (D. Childress) first, time 6.15. Fifth Event.—One mile against time—

Ford (Martin) first, time 1.43.

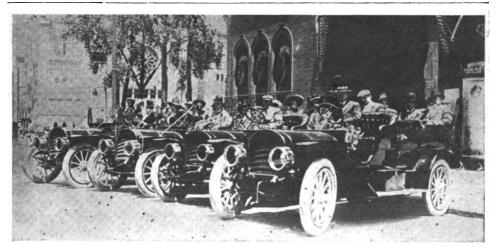
Sixth Event.—One mile against time—Winton (Pace) first, time 1.33.

Route to Queensboro Bridge

The Touring Board of the club, the chairman of which has recently been appointed by the president, will distribute among the members at an early date a diagram of this route, but in the meantime the secretary would advise that the route is as follows:

North on Bedford Avenue to the fountain; turn left, around the fountain and then right into Berry Street;

keep straight out Berry Street, bearing left into Lorimer Street at the end of Berry Street; straight through Lorimer Street; turn right one block to Manhattan Avenue, granite block stone pavement (poor); straight across Vernon Avenue bridge; turn right first street on leaving bridge and then left into Jackson Avenue, straight to the Bridge Plaza.



MISS MARIE DORO AND THE "MORALS OF MARCUS" COMPANY OFF FOR PIKE'S PEAK IN RAMBLER CARS

PREVENTIVES AND REMEDIES

Probably the majority of tire valve derangements are due to the rubber washer in the screw cap of the valve itself. The large thimble which envelopes the whole valve is not meant, but the little cap which must be screwed off before the pump can be applied to the valve. What occurs is this: When the valve cap is screwed home the rubber plug squeezes out of shape, and is more or less cut by the sharp edges of the valve, so that very small pieces of rub-ber are ground off it. These get into the valve, and before very long it commences to leak, when the only remedy is to let all the air out of the tire, take out the valve stem, remove the particles of rubber which have got into the valve, replace, and reinflate-a laborious operation which no one willingly undertakes. To get rid of all this trouble it is only necessary to cut small hard leather discs which will just fit into the valve cap. The leather will not be cut by the screwing up of the valve cap, nor will it push into the valve as the rubber plug does. It is not necessary or desirable to remove the rubber plug in the valve cup, but merely to put the leather one on the top of it. The rubber gives a certain spring behind the leather, and is therefore beneficial.

In attaching a speed-indicating instrument to a car it is quite necessary to have the driving gears, which are mounted on one of the road wheels, exactly centered on the latter, otherwise the gears will wear quickly and will also be noisy.

Very many amateur motorists delight in always taking a hill on the high speed, not realizing that this often strains a motor or requires the car to go too fast up grade over rough places that could be taken with less strain and slower on the intermediate speed.

A slipping clutch is a nuisance at the best of times, apart from the fact that the clutch leather may be burned out and thus involve expenditure for renewal of the leather. In some cases there is no adjustment of the clutch spring, and in others the adjustment is often difficult to operate and takes time. A temporary and quick remedy is one often used by drivers of

heavy vehicles. They take up the footboards, depress the clutch lever, and wedge it so that the clutch leather is out of contact with its driving outer portion. It will be found that the leather is riveted to the surface at regular intervals. Between the rivets the leather can be raised slightly and advantage taken of this fact. To remedy the slip some match stalks are required, and these are inserted into the leather midway between the sets or rivets at the back of the clutch. If this be done evenly all round it will be found that the clutch will take up its work and will not slip.

An occasional glance under the car, when it is at rest, with the engine stopped and the gasolene still turned on, may prove profitable. The fuel tank should also be occasionally inspected to see whether it has become leaky, through the opening of its seams by vibration, or whether the union connecting the pipe to the tank is leaking or not. The gasolene pipe should also be examined for leaks, similarly the union which connects it to the carburetter float chamber. This pipe should have sufficent slack in it to prevent its being strained under any conditions, and may well comprise a coil of one or two turns, to render it flexible under the strains of service. It should not be so placed as to come in contact with any other part of the mechanism which might abrade it and in time cause a small hole. If any of the unions are found to leak they should be disconnected, the ground surfaces wiped perfectly clean and given a coating of white soap, which will be found to stop slight leaks. If, however, this expedient is ineffectual, the bearing surface will have to be ground in with fine emery and rouge or whiting. Finally, we may add that the soldered connections of the gasolene pipe to its unions will bear watching from time to time.

Where rubber hose is used to make connections in the water circulation pipes of a gasolene motor, and has bends in it, a good plan is to reinforce it by a brass coil spring which is a good fit inside. This prevents any flattening at the bend and cracking, resulting eventually in a leak.

C L U B S

The South Bend (Ind.) Automobile Club has begun a vigorous campaign to increase the membership of the organization. There were fifty-five names on the club rolls on June 25 and the governors expect the number will be increased to more than a hundred when the next regularclub meeting is held on July 15. Plans are being made which are expected to bring many out-of-town automobilists to the Indiana city. The following committees have been named for the ensuing year: Good Roads—George M. Studebaker, chairman; John C. Barrett, F. G. Eberhart, H. M. Kaufman, William L. Kizer, F. A. Miller and Patrick O'Brien. Law and Ordinance-William A. McInerny, chairman; Dr. E. R. Borley, F. G. Collmer, James A. Judie and W. F. Wiggins. Touring and Entertainment-M. L. Williams, chairman; Jasper E. Brady, Charles Frazier, N. L. Otis and George W. Smithson. Membership-Samuel B. Robinson, chairman; B. F. Augustine, A. H. Cushing, E. J. Gulick, John J. McErlain, Frank Palmiter, B. S. Walters and John Work.

The Ontario Motor League has had a summarized statement prepared that gives the main provisions of the motor vehicle laws of the different sections in the Dominion of Canada. The league has had a large number of these statements printed and furnished them to collectors of customs at the various ports of entry for free distribution to all automobile drivers entering Canada.

The officials of the Denver Motor Club have assured the authorities of that city that they will do everything in their power to help stop reckless driving. Frank England has been instructed to prosecute all drivers who violate the laws. The officials of the club have requested the fire and police board to revoke the licenses of all drivers who fail to obey the law and the board is following out the suggestion.

The Plainfield (N. J.) Automobile Club has been organized, with officers as follows: Dr. F. C. Ard, president; H. W. Marshall, vice-president; J. H. Rankin, secretary; F. O. Ball, treasurer.

A number of the members of the Galveston, Texas, Automobile Club recently made a club run to Houston, Texas, and return, and reported that the roads between the two cities were in good condition. The twenty-five persons that participated in the run left Galveston in the early morning and returned in the late afternoon. Four hours were consumed making the trip over Galveston Bay on barges. The success of the run is likely to result in similar ones being held regularly during the touring season.

A blacklist of all chauffeurs found guilty of misdemeanors, particularly such as misappropriating the cars of their employers, has been established by the Automobile Club of Canada. Any member employing or engaging any man whose name has been put upon this list is liable to suspension from the club.

For the purpose of coming to a harmonious understanding as to the enforcement of the motor vehicle regulations in Washington, D. C., the members of the Automobile Club of Washington and the city officials are to hold a conference soon, when various questions of interest will be discussed.

The Altoona Motor Club has been organized, with the following officers: President, W. T. Hicks; secretary, E. J. Lomnitz; treasurer, W. W. Blake.

The Automobile Club of St. Louis recently drew up and submitted to the city authorities an ordinance which provides that the speed of automobiles may be raised from eight to ten miles an hour in the residence districts and from six to ten miles an hour in the parks. It is said that the city fathers are considering it favorably.

At its last monthly meeting, the Board of Governors of the Automobile Club of Cincinnati adopted a club pennant. The pennant is of green felt, with a red border, 9 x 12 inches in size, and fastened to a special brass rod holder.

An aggressive campaign to increase its membership is to be started soon by the Automobile Club of Hartford.

AUTOMOBILE SPORTS

At a recent meeting of the Automobile Club of Buffalo it was decided to conduct a one-gallon efficiency contest on July 7. The contest will be run under rules similar to those that governed the one-gallon trial of the New York Automobile Trade Association in connection with the automobile carnival, during the early part of May. To arrive at the winner, the weight of the car will be multiplied by the number of miles covered, and the car with the greatest score wins. Laurens Enos has been selected as chairman of a committee to have charge of the affair, and he will be assisted by Dai H. Lewis, J. L. Clawson, M. E. Tabor, J. B. Eccleston, M. M. Wall, W. A. Lutz, Gus C. Miller, George N. Dilfer, W. E. Blair, W. O. Rutherford, C. S. Sidway and A. B. Wright. The cars will be divided into five classes, according to selling price and each class will be divided into two divisions. The first division will be for entries made by the manufacturer or dealer of automobiles, and the second division will be exclusively for owners of cars who are in no way connected with the trade. Prizes will be awarded to the winner in each division of each class, as well as the winner of the contest, irrespective of the division or classes.

Arrangements are being made by the automobile clubs of St. Petersburg and Riga, Russia, for the holding of a reliability trial during August. The trial will consist of a run between these two cities and back, a distance of about 1,100 kilometers.

A sealed bonnet contest was held a short time ago by the Automobile Club of Australia, extending over two days, the course being from Sydney to Nowra, by the coast road, returning by an inland route, so as to take in a severe five-mile climb up the Razorback Mountain. A 15 hp. Talbot, driven by J. Phizackerley, was the winner.

A number of prominent men of Richfield Springs, N. Y., have scheduled an automobile hill-climbing contest for July 31. The scene of the contest will be Mount Waitontha. The distance of the climbs will be about two miles, and the rise in altitude

between 600 and 700 feet. Fifteen silver cups will be awarded as prizes in the five classes, which will compose the program.

The Automobile Club of Frankfort-am-Main is organizing a series of flying kilometer speed trials for August 22 next.

A three days' run, to take place in the near future, is being planned by the Toledo (Ohio) Automobile Dealers' Association. The participants will leave Toledo each morning for a run of 100 miles or more, returning in the evening.

A hill-climbing contest, to be conducted some time during the fall, is being talked of by the members of the Automobile Club of Hartford.

A number of members of the Automobile Club of New Haven, Conn., took advantage of the ideal weather on Saturday, June 26, and participated in the second club run and outing of the organization to Lake Compounce, Conn. The motorists left the city early in the morning, and after taking lunch at the Lake, returned to New Haven.

The Supervisors of Alameda County, Cal, at a meeting held in Oakland, on June 21, granted permission to the Runs and Tours Committee of the Automobile Club of California to hold a road race over the Scenic Boulevard, which provides a course of 21½ miles, consisting of two straightaways of ten miles each and short connecting links. The club will offer a hand some trophy and will endeavor to make the race, which will be 200 to 300 miles long the most important automobile event ever held on the Pacific Coast.

The Royal Automobile Club of Sweden is organizing a tour through the southern and central part of that country, to be held some time during the summer.

San Francisco Automobile enthusiasts have taken up the question of holding a big road race next September. Already the preliminary arrangements and plans for the race are being perfected.

HIGHWAYS

It has been estimated by the Federal Good Roads Department of the Government that the direct saving to the farmers of this country from properly constructed roads would be \$250,000,000 annually. The automobile has been the means of bringing home to the farmer the facts of this great loss that he has yearly suffered because of bad roads. By creating a demand for, and actually giving him good roads, the farmer has found that the markets are open to him the year around, and that his horses can pull much greater loads to these markets. Instead of being antagonistic to the automobile, as he was a few years ago, the farmer to-day is asking the automobilist to co-operate with him in his efforts to secure good roads. The government is at present making exhaustive tests in road construction work. The inevitable results of these tests will be new methods of road construction that will give us roads to withstand automobile and all other kinds of traffic, and which is bound to bring together by links of inter-communication the outlying districts. This will further facilitate the marketing of the products of the farm.

Traffic conditions on many inter-urban highways have been decidedly changed with the coming of the automobile. Where before the traffic usually consisted of a few teams an hour, it now consists of many hundred automobiles an hour in some of the more frequented sections. There is a decided difference in the action of an automobile on the road and that of a horse-drawn vehicle. With slow-moving horse-drawn traffic the load on the road is distributed in a cone on to the foundation. The steel tires crush the material on the surface, and through the distributing action also tend to crush the internal structure of the road. This is so marked in some cases that the stone becomes rounded throughout the road and the road deteriorates from the interior almost as fast as it does on the surface. With automobiles, the wear is confined almost entirely to the surface. If the surface is properly protected almost no wear is occasioned in the road itself. This difference in road conditions is very thoroughly illustrated by the Newton boulevard reaching out from Boston to the westward and forming part of the automobile road from Boston to New York. On this magnificent wide roadway the automobile traffic is confined to one side and the horse-drawn traffic to the other. By means of a surface treatment the particles of the road surface are kept from moving, and even after three years' wear no perceptible abrasion is noticeable on the road itself. The horse-frequented road, on the other hand, shows constant wear, and dust, resulting from the wearing down of the road metal, is constantly being raised.

State Highway Commissioner James H. MacDonald, of Connecticut, has his annual report about ready for distribution. It is said to be replete with information relative to the maintenance and construction of State roadways, and deals directly with Connecticut subjects. Among other Connecticut highways which are being improved is the Berlin Turnpike, which will be completed about August I, opening a shorter route to New Haven. The route leads directly out of Hartford over Maple Avenue and is virtually straight for seven miles, with small grades here and there. This road will save a roundabout detour by way of New Britain when finished.

Various symbol signs denoting road conditions, etc., are being placed by the Automobile Club of Hartford. One has been placed near the railroad crossing in South Wethersfield, another in the vicinity to denote a sharp turn, and one has been placed in the city to indicate a dangerous crossing. The background of the signs is the club color, blue, while the symbol itself is in yellow.

The municipal authorities of Paris have this year taken more active steps to deal with the dust nuisance, and at the present time are giving a coating of tar to a large number of the principal thoroughfares. The Avenues Marceau and Kleber have just been so treated, as also the Avenue de Neuilly and some of the roads in the Bois de Boulogne.

It is expected that the city council of Prosser, Wash., will make a generous appropriation for the improvement of the streets of that city.

AERONAUTICS

The Wright brothers have repeatedly declared that in six or eight flights any man with good self-control could learn to operate an aeroplane. They are soon to undertake the teaching of two officers of the United States Signal Corps, at Fort Myer, and expect to complete this course of instruction in two or three days. M. Paul Tissandier, of France, the first pupil to handle the Wright machine, recently made the following statement concerning his experience in learning to fly: "In my first trip with Wilbur Wright I did nothing but follow closely every movement of the pilot and accustom myself to the new sensation of rushing through the air. From the outset I had the conviction that steering an aeroplane was a very easy matter. After seven lessons with my instructor, making a total of two hours and eleven minutes in the air, I was allowed to steer the machine alone and found it not a difficult performance. Mr. Wright first allowed me to hold the elevation rudder, controlling the ascent and descent of the aeroplane. All the time Mr. Wright kept his hand on the lever operating the vertical rudder and the flexing wing tips. When I was sufficiently advanced I was allowed to take the second lever, the operation of which is more delicate. After this my education was practically finished, and I was allowed to take full charge of the machine with Mr. Wright sitting by my side, ready to interfere if I made a mistake. While I consider the handling of an aeroplane, especially one of the Wright model, quite simple, there is no doubt that the practice of other sports, especially automobiling and ballooning, help an aeroplane apprenticeship. All exercises which train a man to have full control of himself, to never allow his nerve to dominate when subjected to the sensations of speed and height, are an excellent preparation for aviation. But in order to become an aviator in a very short time it is not necessary to have any acrobatic skill. All that is necessary is to be a god sportsman and always to have self-control.'

The Pacific Aero Club has been organized by San Francisco enthusiasts. The temporary officers elected are as follows: J. C. Irvine, president; C. C. Bradley, vice-president; Cleve T. Shaffer, secretary; J. M. Masten, treasurer. Board of Directors—Professor Bruno Heymann, A. Lowell Eisner, Professor Joseph Hidalgo, F. J. Harrington and Professor George A. Merrill. In addition to those already mentioned the following signed the by-laws as charter members: H. C. Bulask, F. P. Albrecht and Clifton O'Brien.

The balloon St. Louis III. ascended from St. Louis on Saturday, June 26, and made a landing at Carlinville, Ill., after a flight of sixty miles in seven hours. The passengers were Lewis M. Rumsey, Jr., Lee Rumsey, Sylvester Von Puhl, Marquard Schwarz, and H. E. Honeywell, pilot. The gas bag held 76,000 cubic feet of gas.

The Belgian dirigible balloon La Belgique made its first trip in the neighborhood of Brussels on Monday afternoon of this week. The balloon easily rose to the altitude of 400 meters, and then made a fifteen kilometer trip, returning to the point of departure, within a half hour. Herr Goldschmidt, the builder, was loudly applauded for his achievement. The balloon is fifty-five meters long and has 3,000 cubic meters' capacity. It is driven by two Ivins motors of 70 hp.

It is expected that Glen H. Curtiss will make an aeroplane trial in a few days for the prize offered six months ago by Cortlandt F. Bishop, president of the Aero Club of America. He will be the first entrant to try for it. The prize is \$1,000, divided into four parts, and will be awarded to the owners of the first four aeroplanes of American manufacture which fly one kilometer without touching the earth. It is also probable that Mr. Curtiss will be selected as the Aero Club's contestant in the international aviation events in Rheims, France, next August. His new aeroplane has already demonstrated its capabilities for speed, and many of his friends believe it would make a good showing in competition with the European aeroplanes.

The Signal Corps dirigible balloon No. 1 was sent from Fort Omaha early this week to Toledo, O.. where it will be used in a military tournament which commences July 5.

Road Conditions in Central New York

Automobilists touring through New York will be pleased to know something of the present condition of the roads in the central part of the State, as furnished to the A. A. A. Good Roads Board by R. D. Moot, of the Automobile Club of Buffalo. He states that the main highways from Buffalo to Albany via Geneva, Syracuse, Utica and Schenectady, are in fairly good condition, with the exception of the road from Geneva to Freebridge, north of Seneca Falls, and a few short stretches not exceeding half a mile, where the road is being turnpiked be-

tween Little Falls and Fonda. The roads between Waterloo and Seneca Falls are now torn up for the laying of sewers.

It is suggested that in this section autoists take the road north from Geneva along the New York Central tracks three or four miles and thence turning at right angles east a good country road will be found to Freebridge. Most automobiles in the run from Syracuse to Buffalo are now taking the route by way of Rochester, although the road is said to be in ordinary condition.

To Sign-Board New Jersey Roads

The many requests that have been made from time to time by the A. A. A. officers, for the placing of legible road signs by local clubs in their respective districts are bearing fruit this season in many new localities. The New Jersey Automobile and Motor Club has just started an active campaign to place touring and danger signs at all crossroads. It is ambitious to have every road in the State properly marked, and the secretary of the club has requested

the members to offer suggestions as to where such signs are most needed.

The Automobile Club of Buffalo has recently placed signs on the roads between Buffalo and Olean, and on the Lake Shore Road to Fredonia many new ones have been erected. The Buffalo Club has also sent a request to the State Highway Commissioner asking that several needed improvements be made on much used roads near the city.

Oldest Stage Line Gives Up Horses

Worcester, Mass.—On July I the last stage line in Massachusetts passed into history and in its stead was inaugurated a line of automobiles. The old stage line had plied for nearly a century between Petersham, Barre and other nearby points, carrying the mails and passengers and the hosts of summer residents back and forth. The line was abolished, even the stables at Barre being sold.

In their stead George H. Prouty, proprietor of a hotel at Barre, has established a line of five Buick touring cars and two large ten-passenger automobiles, which will carry all traffic in

the section. The big passenger cars are modelled after plans prepared by Mr. Prouty and are designed for all-the-year-round use, being entirely enclosed and heated during the winter months.

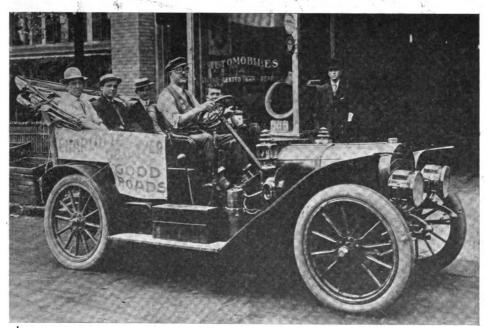
New Jersey Has an Official Car

The State Legislature of New Jersey recently made an appropriation for the purchase of a 45 hp. Rambler car for the use of the executive department of the State government. On all public occasions in which Governor Franklin Fort participates, this Rambler appears.

Good Roads Propaganda in the South

In an energetic campaign now being conducted throughout the South in behalf of good roads, newspapers, automobile manufacturers and automobile half of good roads, and aroused much owners are enthusiastically co-operat-

Rambler, in which he visited many of the important cities in the South, distributed literature along the way in be-Interest in the movement. The Raming. The campaign has now reached a bler driven by Mr. Klouse has traveled point where the desire for good roads over 18,000 miles and it finished one



THE EDUCATOR AND HIS RAMBLER CAR

has become almost a mania, and motorists in all parts of the South are making tours to educate the users of the road to the importance of better public highways.

Joseph Klouse, Charlotte, N. C., has just made a trip of 3,000 miles in a

run of 250 miles from Charlotte, N. C., to Atlanta in 21 hours and 30 minutes.

Mr. Klouse represents the Charlotte Daily Observer, of Charlotte, N. C., in the New York Herald-Atlanta Journal good roads promotion.

Mexico Wants a Show

It was recently announced in the City of Mexico that the flag to flag contest from Denver, Colo., to the Mexican capital, had been postponed from September to November of this year. The race will start at Denver either on November 2, 9 or 16, and will finish in the City of Mexico the first part of December. The automobilists of the City of Mexico are very enthusiastic over the possibilities of holding an automobile show, the first ever held in Mexico. some time shortly after the completion of the contest from Denver.



A WEEKLY JOURNAL DEVOTED TO THE INTERESTS OF AMERICAN AUTOMOBILISTS.

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Lights and Their Regulation

There are many indications that the subject of lights is going to receive a considerable amount of attention during the next year or two. It is a subject in which all users of the public highways are interested, and regulations affecting lights apply directly to the three kinds of vehicles which to-day almost monopolize the roads. These vehicles are automobiles, trolley cars and horse-drawn vehicles -classes about as far removed from each other as they could possibly be. It is not surprising, therefore, that a wide difference of opinion exists regarding desirable or necessary regulations.

Trolley cars and automobiles are obliged to carry lights after sundown. That is the law, and, however much opposition there may have been to it in the beginning, so far as motor vehicles are concerned, it is a certainty that present regulations will be continued. It is only the horse-drawn vehicle that is permitted to traverse the roads unlighted, and in an increasing number of places this privilege is now denied.

The average owner or user of such a vehicle, however, considers that he should be exempt from the necessity of lighting. From time immemorial he has been permitted to go lightless, and he cannot see why he should be obliged to change now. It will be admitted that a century or more ago, when slow-moving quadrupeds drew all vehicles, it would have been nonsense to establish a universal lighting practice. These were the leisurely times, when nothing moved rapidly on a road. Consequently, no apprehension was felt regarding accidents, and no necessity existed for using lights to prevent them or to give warning of approach. Of course, some horse-drawn vehicle users carried lights for their own convenience, but they were in the minority, and their example had little effect on the great mass of road users.

With the bicycle came the entering wedge of the light-carrying habit. Laws were passed requiring cyclists to equip their machines with lamps. Next came the trolley car, and it moved with such unexampled speed and was so dangerous if it came in collision with other road vehicles, that there never was any question regarding the necessity of its being equipped with lights. With these precedents fresh in the public mind, it was not surprising that when automobiles appeared on the scene they were obliged to carry lights also. Whatever feeling there may have been at first as to the lack of necessity for this, none exists at present. Motorists recognize that they must carry lights, whether they should or not, and that is practically an end of the matter.

The next step is the agitation for universal lights. This is no new thing, but it is only now beginning to be a real issue. If horse-drawn vehicles possessed the road now, as they did formerly, there would not be any great necessity for carrying lights, however desirable such a thing might be. But with the change in the character of road traffic, the great increase in the number of power vehicles and the tremendous acceleration of speeds that has taken place, the slow-moving horse-drawn vehicle becomes a menace. Of course, there is no danger of it running into faster moving vehicles, but the latter are not always certain to receive warning of the presence of the former in time to avoid accidents.

The feeling is growing that warning should be given of the presence of all vehicles—slow as well as fast moving, as in no other way can safety be secured. The contention to this effect is unquestionably sound and must eventually prevail. Universal lighting must come, and that before very long. It prevails now in several States, and in other places its adoption is only a matter of a very short time.

Unquestionably, before the matter is finally settled, there must be some regulation of the kind of lights that are to be carried. The blinding searchlight of the trolley car is justly regarded as being almost intolerable, while there is a very evident disposition to require automobile lights to be non-offending in this respect also. While we are about it, let us thresh the entire matter out, so that when universal lights come, they shall bear some relation to the habitual speed of the vehicle that carries them.

TRADE DEPARTMENT

Clarkson Gets Chalfant's Place

At a meeting last week of the Board of Managers of the Association of Licensed Automobile Manufacturers, Coker F. Clarkson was elected assistant general manager of the association. It was stated that this was done to fill out the term of E. P. Chalfant, who recently resigned as general manager.

Other business of a routine character was transacted by the following members: American Locomotive Company, James Joyce; Buick Motor Company, W. C. Durant; Cadillac Motor Car Company, W. C. Leland; Corbin Motor Vehicle Corp., M. S. Hart; Elmore Manufacturing Company, J. H. Becker; E-M-F. Company, William E. Metzger; H. H. Franklin Manufacturing Company, G. H. Stilwell and H. H. Franklin; Haynes Auto Company, El-

wood Haynes; Hewitt Motor Company, E. R. Hewitt; Locomobile Company of America. S. T. Davis: Lozier Motor Company, F. C. Chandler; Packard Motor Car Company, M. J. Budlong; Peerless Motor Car Company, L. M. Kittredge; Pierce-Arrow Motor Car Company, Charles Clifton; Pope Manufacturing Company, George Pope and A. L. Pope; Royal Tourist Car Company, George J. Dunham; Alden Sampson, 2d, G. E. Mitchell; Selden Motor Vehicle Company, R. H. Salmons; F. B. Stearns Company, F. B. Stearns; Stevens-Duryea Company, C. C. Hildebrand; E. R. Thomas Motor Car Company, E. L. Thomas; Waltham Manufacturing Company, L. J. Hart; Winton Motor Carriage Company, Thomas Henderson, and E. P. Chalfant, general manager.

\$50,000 Company for Columbus, Wis.

The Badger Automobile Company, of Columbus, Wis., has been incorporated with a capital stock of \$100,000, to manufacture motor vehicles. A factory will be erected at once and runabouts and touring cars will be the product for the present, the manufacture of trucks and other types of vehicles to be taken up later. An experimental machine has been operated at Columbus for about two months.

It is claimed that \$50,000 of the capital has been subscribed for, enough to start the company on its way, and the remainder will be subscribed for as needed. The promoters of the company are all leading business men of Columbus, and include William C. Leitsch, capitalist; E. W. Arbogart, George C. Holtz, A. M. Bellack, and E. M. Poser. The car will bear the name of "The Badger."

Preparing for the California Mitchell Jubilee

The third annual Mitchell Jubilee in California will be held on July 10 at San Jose, Santa Clara County. The hill-climbing contest will take place on Alum Rock Hill, beginning about 2 P. M. Any owner of a Mitchell may compete and need make no entry.

Three prizes will be awarded in the ladies' class for cars of any model; two in the Model 30 class, two in the Model 20 class, three in the touring class, three in the runabout or roadster class, old model, and three money prizes (\$50, \$30 and \$20) in the professional class:

11 months

May Exports Very Heavy

Exports of automobiles and accessories for the month of May, 1909, amounted to \$876,877, according to the monthly Summary of Commerce and Labor. This is an increase of \$417,820 over the same month in 1908. For the eleven months ended with May, a total of \$4,876,336 worth of automobiles and

parts had been sold to foreign countries. The best May customers were British North America and the United Kingdom, their respective shares being \$281,806 and \$281,180. The third largest buyer was France, with a purchase of \$145,308. Following are the figures in detail:

II months

May'c		ending May '08	ending May '09
United Kingdom\$132,66		\$1,503.606	\$1,375,815
France 100,59	7 145,308	587,890	483,037
Germany 21,78	35 24,657	126,279	94,602
Italy 6,30	0 25,958	237,596	214.994
Other Europe 16,38	36,037	132,998	270,834
British North America 94,06	6 281,806	809,836	1,405,079
Mexico 39,90	8 32,009	379,126	369,372
West Indies and Bermuda 6,88	37 20,386	241,365	248,786
South America 21,53	4 14,913	213,733	135,348
British East Indies 1,61	1 28	28,558	23,401
British Australisia 5,93	8 10,132	153,750	111,255
Other Asia and Oceania 10,59	8 666	123,249	89,196
Africa 12	7 3,422	7,288	36,412
Other countries 66	375	21,851	18,205
\$459,05	7 \$876,877	\$4,567,125	\$4,876,336

New Demountable Rim for Inflated Tires

A new demountable rim carrying extra tires inflated, ready to run, has been developed by the Diamond Rubber Company. The rim has just been placed on the market and will have a conspicuous place in the Diamond line for 1910. The rim is simple and strong and permits the removal of a damaged tire and the application of a fresh one, pumped up and ready for running, in scarcely more time than required to jack up the wheel.

Notable improvements over the Diamond demountable equipment is the fact that the rim can be fitted to any automobile wheel felloe of regulation construction, without material alteration of the same. No machine work is necessary on the wheel band or elsewhere and any competent blacksmith can, the Diamond Rubber Company states, do

the job properly and inexpensively. A further improvement eliminates the necessity of mortising out the felloe to admit the valve stem of the inner tube. A series of wedges fitting between the wheel band and the rim itself take up all the possible play and make the fit tight and secure. For the same reason small irregularities, due to dinging of rim or band or other causes, cannot interfere with the rim's quick and easy operation.

The new Diamond demountable will accommodate any standard make of regular clincher tire. The Diamond company has spent much time and energy in developing and testing this new product and the vigor with which the rim is being pushed is plainly indicative of the company's own confidence in it.

Form Baseball League Among Local Motorists

Baseball fans among the automobilists on Broadway will have the opportunity of rooting for real automobile teams this season, and Fred Wagner and Alfred Reeves will not have to wait until Hans Wagner and his Pirates come to town to do their daily disappearing act about 3 o'clock daily. The Automobile Trade Baseball League has been formally launched and six local teams, four representing automobile houses and two tire concerns, have started competing for several cups and a shield which have been offered to the three teams leading the league at the end of the baseball season.

The league was made a permanent association at a meeting held in the office of the E. R. Thomas Motor Car Company, on Thursday, June 24, and consists of the following companies and managers: Packard Motor Car Company, L. H. Wessels; E. R. Thomas Motor Company, W. A. Woods; Pierce-Arrow Motor Company, Walter Wun-

der; Studebaker Automobile Company, James H. Barry; Diamond Rubber Company, C. G. Studebaker; Republic Rubber Company, George C. Kloss, W. A. Woods was elected president, and L. H. Wessels secretary and treasurer.

The teams in the league consist only of players employed by the concerns represented and chauffeurs are barred. A cup valued at \$100 has been offered by Arthur Interriden, of the Warner Instrument Company, while A. G. Spalding & Bros, have also offered a silver cup to be played for. Another prize will be a shield known as the "American Chauffeur and Motor Car Shield."

All the games are scheduled to be played on the parade ground at Van Cortlandt Park. The three games already played resulted as follows: Packard defeated Republic, 16-14; Diamond defeated Studebaker, 8-2, and Thomas defeated Pierce-Arrow, 17-7.

Racing Drivers Divide \$10,000

When \$10,000 was divided among the champion Cubs, who won the base-ball pennant for Chicago last year, it was regarded as setting a mark that was likely to stand for a long time in the sporting world. Now it is stated by an official of the Buick Motor Company that \$10,000 has been given the members of the Buick team as a reward for winning the big Cobe trophy race on June 19.

The money was split only three ways; going in equal parts to Louis Chevrolet, the winner; Lewis Strang and Bob Burman, his team mates. Thus the three great American pilots get as much money as a bonus for winning one road race as sixteen of the greatest ball players in the world get for playing

over 150 games and winning the world's championship.

The rich bonus is but a part of what the drivers get for one of their number winning the Cobe race. Each of them receives a big salary for his yearly services and when the bonuses of the carburetter, spark coil, magneto tire, and other accessory makers are added, the total amount received by the Buick stars for the Cobe victory will exceed \$20,000.

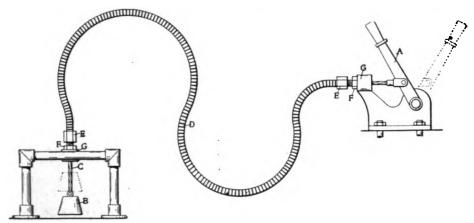
In addition, the citizens of Flint, Mich., the home factory of the Buick, have arranged a monster demonstration and banquet in honor of the boys, who, although they are adopted sons of the Michigan city, are none the less honored and appreciated.

Bowden Wire Comes to America

The Bowden Wire has just been introduced in this country. Abroad over two million feet of Bowden patent wire mechanism is used every year for the transmission of reciprocating motion through a flexible and tortuous route. It has also been adopted in the British, French and German navies.

J. S. Bretz, of the J. S. Bretz Company, who import the wire, uses it on his Stearns car to operate the Solar eclipse on the gas lamps on the car, which permits him to be able to use the fuel headlight in the open country, and

Bowden mechanism, the usual mechanical method of transmitting power in other than a straight line was by means of angle levers and rods, cables and pulleys, and other such devices, all of which necessarily involve considerable complication besides increased labor and expense in adapting them satisfactorily to the user's requirements. The Bowden mechanism dispenses with all these difficulties, while enabling power to be transmitted by the most tortuous route. The mechanism is complete in itself, and requires only that one mem-



THE BOWDEN WIRE READY FOR USE

shade the light in the city, so as to comply with the local ordinances against glaring headlights. The muffler cutout, carburetter, and the U. & H. master magneto, are also fitted with the Bowden wire for their easy control.

Briefly, the Bowden wire mechanism consists of two parts, a closely coiled and pratically incompressible spiral wire, constituting what is termed "the outer member," and a wire cable, practically inextensible, threaded through above, and termed "the inner member."

Previous to the introduction of the

ber shall be anchored to a stop at each end, and that the other member shall be attached to an operating lever at one end, and to the object to be moved at the other.

Let the reader imagine two distant points—one where there is the object to be moved, the other where the necessary power has to be applied, through a length of the Bowden wire mechanism sufficient to reach from point to point, loosely, round any intervening corners or obstacles, the inner member of the mechanism emerging from the outer member, being attached at one end to the actuating lever, and at the

other to the object to be moved, the outer member being anchored to fixed abutments, which may be placed whereever found most convenient. Pull the lever, and the power or movement is at once imparted to the other end. When being actuated, the mechanism at its curves will exhibit a wriggling movement, as the inner member attempts to reach the straight line of pull, but is resisted by the outer member, which cannot shorten its length, anchored as it is at both ends. This movement should not be restrained; the virtues of the mechanism are best evinced when The mechanical the curves are free. expert will readily perceive that the ends of the inner member may be anchored, and the other member then used as the medium for a pushing motion; or, that neither member need be fixed in a stationary sense, but only fixed relatively to each other, so that while one pulls the other pushes, relative displacement thereby ensuing.

The Bowden wire mechanism is particularly adapted for motor cars, motorcycle and motor boat service, and although the opportunities for the use of Bowden wire are practically unlimited, and in every case its employment is accompanied by decreased cost of actuating mechanism, simplicity, instantaneous operation of actuated parts, due to absolute lack of lost motion. Its best uses are indicated for brakes, ignition and throttle controls, sprags, muffler cut-outs, auxiliary air controls, and carburetter ticklers, all operating from the driver's seat.

Buyers Liked Blue Best

Dealers in Pierce-Arrow cars have been supplied with samples of thirty-two colors that will be used in finishing cars of that make in 1910, and, incidentally, the list of colors gives a very good idea of what the buyers of the highest grade of motor cars favor in the decoration of their cars. The color scheme used for 1910 are those chosen from among the most popular shades used on the 1909 cars made by the company.

Some surprises would be in store, doubtless, for the man who is asked off hand to name the shades chosen most often. Especially surprised would be

those best selling novelists whose rule is to refer to a touring car as big and red.

A table just prepared at the Pierce-Arrow plant shows that red ran fourth in the season's output. For purposes of comparison the various shades of different colors were not taken into account. The comparison shows that the colors ranked as follows: Blue, 26.57 per cent.; green, 25.03; wine, 21.14; red, 10.88; brown, 6.08; gray, 4.60; black, 1.75; white, 31. In addition 2.88 per cent. of all the orders received were for chassis to be given simply a lead coat.

Four-Cylinder Ramblers are Popular

More than twice as many four-cylinder Ramblers have been sold this year than during the corresponding period of last year.

The largest increase dates from the introduction of the Model 34. One thousand Model 34's are in use, with the result that the new Models 44 and

45 are extremely popular. The volume of Rambler sales for the Rambler fiscal year to date is just double that of a year ago.

Another important fact is that 75 per cent. of the buyers of the new Ramblers are specifying the Rambler spare wheel.

Cincinnati Gets a 70 H. P. Patrol Wagon

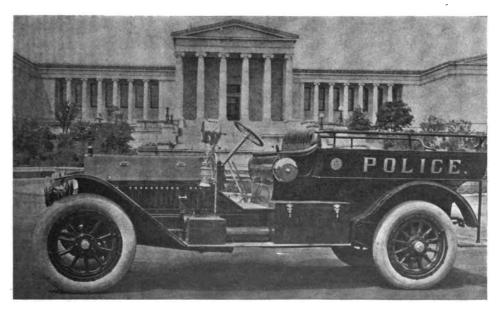
Delivery was recently made to the Police Department of Cincinnati of a patrol wagon possessing some unusual features. It was made by the E. R. Thomas Motor Co., and its size and strength are shown by the accompanying cut.

This machine is finished in dark blue with black points, and all metal work, with the exception of the rail around the body of the machine, which is black, is finished off in highly polished silver nickel. The side lights are eliminated and the regular police lanterns substituted on the dash. It is one of the most powerful machines that can be obtained. The machine is also equipped with large headlights fed from a Pres-O-Lite tank, which is encased in a black leather cover to match the boly of the There is also a fourteenmachine. inch searchlight, which is bolted to the dash. Along the running board on the control side are two large boxes joined together by an invisible joint, which

contain medicine kits and other necessary apparatus. The running board on the opposite side has repair parts and tool kits, etc., the Pres-O-Lite tank also being on that side.

A part of the equipment consists of stretchers, crowbars, an axe, nets and other accessories which are indispensible to the perfect equipment of a vehicle of this character. This automobile patrol is a six-cylinder 70 hp. machine built on the regular chassis, put out by the Thomas company, and purchased for the City of Cincinnati by Chief Milliken, who came on with Colonel Casey, the Commissioner of Police, to attend the convention. Thomas company, on the strength of the order received from Cincinnati, and the demonstration given to various police chiefs, have received orders for five machines similarly constructed and equipped.

Aside from the machines turned out by the Thomas company for the Webb



THE WAGON READY FOR A LOAD

Motor Fire Apparatus of Vincennes, Ind., which are built upon the same chassis, these patrols will be the most powerful automobiles used in the public service.

On Thursday, June 18, an automobile fire engine of the latest type was tested in the afternoon by the Fire Department, and it was the first time that a self-propelled piece of apparatus had ever been tested in Buffalo. Those who rode in the machine during the test were Chief McConnell, Assistant Chief Murphy, Commissioners Machemer and Persons, and A. C. Webb, vice-president, and J. Napier Dyer, general manager, of the Webb Motor Fire Apparatus, of Vincennes, Ind., the makers, and eight firemen.

The machine was run from fire headquarters to the pipe line at Washington and Broadway, where a stream of 1½ inches was thrown 200 feet under 235 pounds pressure. The engine is equipped to throw two streams 165 feet under 175 pounds.

After the power test, a speed test was made, Mr. Webb driving. The route

was out Main Street, to the Almshouse and the return trip was made through the park to Delaware Avenue to Ferry and then in Main Street. On the way out a stop was made at Engine House No. 16, and from there to the Almshouse, a distance of 36-10 miles, was covered in 7½ minutes. This was a speed of about 35 miles an hour, but it was said the machine had made the 18 per cent. grade at Ferry Street at about 43 miles an hour, and that it was capable of being driven at 60 miles an hour. The apparatus is a combination fire engine and hose-cart. It carries two ladders, 1,000 feet of hose and six to ten firemen. Its motor is a six-cylinder 70 hp. engine and is capable of pumping 1,000 gallons of water a minute.

Similar machines are now in use in a score of smaller cities, and are manufactured complete at \$7,500, which is about \$1,500 less than is paid for the largest engines now in use. The demonstration was so successful that resolutions will be introduced into the Council for the immediate purchase of six of these machines.

How Electricity is Stored in a Battery

How does a storage battery store electricity? is a question often asked of dealers in automobiles. The fact that it doesn't store electricity, but produces it in much the same way that a primary battery does is always a matter of surprise to the uninitiated. The following brief description should make this clear:

A glance within the cell of a standard storage battery reveals a series of gray and brown metallic plates separated by wooden and rubber separators and immersed in liquid. Each plate consists of a "grid" made of a metal composition, chiefly lead, and filled with a paste of lead oxide. These plates have been subjected to an electro-chemical process in which the paste on the

thicker, brown, plates has been peroxidized, making the plates positive, while the paste on the thinner, gray, plates has been reduced to a soft spongy material making them negative. The liquid or electrolyte within the cells is dilute sulphuric acid.

The passage of an electrical current through the battery produces a condition of chemical unstable equilibrium in the compounds of which it is composed and these cannot return to their normal state without giving out electricity through an external circuit. The current thus established may easily be directed through appropriate mechanism for the performance of any work required of it—for instance, the propul-

sion of a Waverley electric vehicle. The passage of the current through the battery in the opposite direction renews the unstable condition of its molecules as before, and the battery is said to be charged. In this condition its action resembles that of a primary battery, but it possesses the immense advantage that the process of charging and discharging may be repeated over and over again as often as an electric current is made to pass through the cell.

Worcester Men Acquire Grout Plant

Worcester, Mass.—Local capitalists have purchased the plant of the Grout Automobile Company, at Orange, from receivers of the concern and will manufacture a high-priced car. Plans are already being worked out for the 1910 models.

The factory was the first in the country to be used exclusively for the manufacture of automobiles, and was established by the late William Grout. Walter Gould is president of the new concern.

Big Verdict for Barney

Barney Oldfield was given a verdict for his full claim of \$6,706 against the Goodyear Tire and Rubber Company by a jury in the circuit court at Big Rapids, Mich., recently. The suit arose out of a contract between Oldfield and the Goodyear company in 1905, by which Oldfield was to receive \$50 a week and free tires for using and exploiting the company's product. After the contract had been in force several months the tire manufacturers got together, it is claimed, and agreed to cut out the bonus to racers, under a \$5,000 forfeit. The company will appeal.

A Remedy for Eye Trouble

Motorists will find that foreign bodies can often be removed by a clean handkerchief wrapped around the end of a match, tooth pick or lead pencil; or lay the head back, lift the lid a little and drop a little water in the eye, or bend forward and dip the eye in a basin of water and wink several times. The water will usually wash away the dirt. Dirt, dust, or any other foreign substance are easily removed by the use of Murine Eye Remedy.

At Work on 1910 Wintons

On July 10 the Winton Motor Carriage Co. will announce their 1910 line, which will consist, as it did this year, entirely of sixes.

The last of the 1909 product has been shipped from the factory, and work on the new models has been started.

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INDEX TO ADVERTISERS

Automobiles (Electric)—	
Babcock Electric Carriage Co. Baker Motor Vehicle Co. New York to Lake Mahopac Tour	904
Studebaker Automobile Co	839
Automobiles (Gasolene)—	
Brush-Brush Runsbout Co.	
Chaimers-Detroit Chaimers-Detroit Motor Co EMFEveritt-Metager-Flanders Co	902 898
Frontenac Abendroth & Root Mfg. Co	900
Haynes Automobile Co	900
Inter-StateInfer-State Automobile Co	899
JewelJewel Motor Car Co. LecomobileLecomobile Co. of America,	900
Matheson-Matheson Motor Car Co	844
Maxweij-Briscoe Motor Co	899
Mora-Mora Motor Car Co.	
Overland Automobile Co	869
Peerless Motor Car Company New York to Lake Mahopac Tour The Pierce-Arrow Motor Car Co	-70
The Pierce-Arrow Motor Car CoInside Back C	B/Z DVET
RamblerThos. B. Jeffery & Co	846
Stearns-The F. B. Stearns Co.	85/
Stevens-Duryen Co.	837
Streens-Duryen Co. Studebaker Automobile Co. The E. R. Thomas Motor Co. Winton-Winton Motor Carriage Co Inside Front C	900
Winton-Winton Motor Carriage CoInside Front C	over
Automobiles (Steam)—	
The White CompanyBack C	DVE!
Lane—Lane Sales Co	901
Batteries—	
Stnaley & Patterson	842
Stanley & Patterson	842
Bedies-	
Bedies— Springfield Metal Body Co	
Bedies— Springfield Metal Body Co	897
Bedies— Springfield Metal Body Co Champagnes— Penmery.	
Bedies— Springfield Metal Body Co Champagnes— Penmery. Cigarettes—	897 902
Bedies— Springfield Metal Body Co Champagnes— Penmery.	897 902
Bedies— Springfield Metal Body Co Champagnes— Penmery Cigarettes— Nestor Coils—	897 902
Bedies— Springfield Metal Body Co Champagnes— Penmery. Cigarettes— Nestor	897 902
Bedies— Springfield Metal Body Co Champagnes— Penmery Cigarettes— Nestor Coils—	897 902
Bedies— Springfield Metal Body Co Champagnes— Penmery. Cigarettes— Nestor Heinse Electric Co.	897 902
Bedies— Springfield Metal Body Co Champagnes— Penmery. Cigarettes— Nestor Coffs— Heinse Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co.	897 902
Bedies— Springfield Metal Body Co Champagnes— Penmery Cigarettes— Nestor Coils— Heinse Electric Co. Dust Preventives— Tarvia-Barrett Míg. Co. Electric Welding—	897 902
Bedies— Springfield Metal Body Co Champagnes— Penmery Cigarettes— Nestor Coils— Heinse Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co.	897 902
Bedies— Springfield Metal Body Co Champagnes— Penmery. Cigarettes— Nestor Coils— Heinse Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co Electric Welding— Standard Welding Co Eye Tonic— Murine Eye Remedy Co.	897 902 902
Bedies— Springfield Metal Body Co Champagnes— Penmery. Cigarettes— Nestor Coils— Heinse Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Graphite—	897 902 902 898
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News Notes

A Mitchell agency has been established in Waycross, Ga., with Gilbert M. Younglove.

E. P. Brinegar, of the Pioneer Automobile Company, of San Francisco, expects to leave shortly for his semi-annual visit to the eastern factories.

Robert McCurdy, Pittsburg agent for the Pierce-Arrow line, will soon have new headquarters, those formerly occupied by the Fort Pitt Automobile Co., on Baum Street, East End.

A building site, 100x142 feet, costing about \$30,-000, has been purchased by the Standard Automobile Co., of Pittsburg. A large garage and salesroom will be built on the lot.

The Moreland Motor Car Co., which was recently organized in Los Angeles, Cal., with a capital stock of \$300,000, has announced that it will soon commence the erection of a manufacturing plant.

A two-story brick garage, 35 x 63 feet, has been erected at Ridgefield, Conn., and will be occupied by George G. Scott and George G. Lewis. The building has been well equipped with machinery, and has every facility for giving good service.

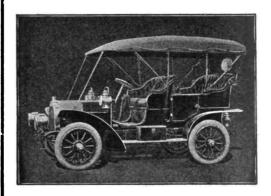
A new speedometer concern, known as the Reliance Speedometer Company, was recently organized at Kittery, Me., with \$600,000 capital. The men back of the new organization are: James H. Smith and Daniel Fallon, of Boston; James S. Newton, Brookline; Daniel H. Newton, Holyoke; S. J. Morrison, Portsmouth; Horace Mitchell and M. G. Mitchell, of Kittery.

The Boston Electric Garage Company has just been formed, with N. Rommelfanger as president and James A. Binney as treasurer. The company proposes to have a garage exclusively for electric vehicles. The buildings, 321 and 323 Columbus Avenue, are to be torn down and a new building erected. The garage will be of steel, fireproof construction, four stories in height, and will have a deep basement. It is expected that it will be completed during the summer.

The performance of Fisk tires in the Western Stock Chassis race at Chicago was one of the most notable ever seen in an automobile speed contest. Bourque, who drove the Knox into second place, losing the race by a very small margin, carried Fisk removable rims and bolted-on tires, and had no tire trouble. The big Knox went through the 396-mile grind on one set of front tires and changed rear tires on the twelfth

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lap, only as a matter of precaution, for the rear shoes were in good condition, even at this stage of the contest. These were the only tires he used throughout the race, and in view of the badly cup-up condition of the course on account of the small car race of the day previous, it is remarkable to think that rubber and fabric will stand the strain of such a long race.

The Pioneer Automobile Company, of San Francisco, is in receipt of the following letter from J. Manley, of Ridgewood, Cal.: "I drove up here from Oakland, Cal. Haven't had any trouble at all. My Thomas is certainly a wonderful car, and no hill so steep but what the car just 'eats it up,' so to speak. I drove over to Willits sometime ago, and a party of millmen wanted to go to Scotia, Humboldt Co. No other car could make the trip, so they asked me if I could possibly accommodate them and take them to Scotia soon as possible. I told them 'yes, right after dinner.' So they had lunch and come out and got comfortably seated in the Thomas, and we started for the lumber district. We had no tire trouble at all, and as we reeled off mile after mile, my guests were loud in their praises of the Thomas Flyer 'Special.' We staid in Scotia all night, and started for Willits next day, where we arrived without any trouble, and my guests were highly pleased. This is one of the many trips I have taken, and the car is giving me no trouble at all. Several makes of automobiles have been tested in this country, but the Thomas is the only one to stand up under the strain of hard trips."

INCORPORATIONS.

Jersey City, N. J .- Mechanical Tire Company, with \$500,000 capital. Incorporators: W. S. Meeks, William W. Ulman and W. F. Foght Brown.

Camden, N. J .- Regal Tire and Rubber Company, with \$250.000 capital. Incorporators: William H. Wilson, Stewart Murray and Frank A. Kuntz.

Louisville, Ky.-Louisville Automobile Company, with \$5,000 capital.

Birmingham, Ala.—K. E. Auto & Electric Company, with \$10,000 capital. Incorporators: Kyle Elliott, T. G. Erwin and L. C. Kyle.

Plainfield, N. J.—The Plainfield Auto-Bus Company, with \$50,000 capital. Incorporators: Frederick A. Duttenhofer, Arthur E. Force and Adolph Tepper.

Carthage, Miss.—Carthage Automobile Company, with \$10,000 capital, to operate an automobile line between Canton and Carthage. Incorporators: R. L. Jordan and J. A. Walker.

Mention "Automobile Topics" when writing.

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Wilmington, Del.—The Consumers' Auto Supply Co., with \$25,000 capital. Incorporators: E. C. Neagley, M. L. McKain and B. L. Slonecker.

Chicago, Ill.—Thorndale Garage, with \$25,000 capital. Incorporators: A. A. Rolf, A. C. Morey and F. J. Browning.

New York, N. Y.—Automobile Inner Tube Co., with \$350,000 capital. Incorporators: A. M. Bango, A. R. Bango and G. G. Steigler.

New York, N. Y.—Standard Sporting Goods and Motor Goods Co., with \$25,000 capital. Incorporators: J. Hirschman, O. W. Freidenrich and A. Hirschbaum.

Auburn, N. Y.—Auburn Auto-Pump Co., with \$25,000 capital, to manufacture automobile pumps. Incorporators: E. N. Ross, R. J. Berham, C. W. Stoke and L. Heazlitt.

Jersey City, N. J.—Mechanical Tire Co., with \$500,000 capital, to manufacture rubber tires. Incorporators: H. O. Coughlin, S. A. Anderson and C. B. Leggett.

Far Rockaway, N. Y.—Philip C. Traver Mfg. Co., with \$50,000 capital, to manufacture automobile accessories. Incorporators: P. C. Traver, L. Pearsall and G. Breng.

Chicago, Ill.—Homan Garage, with \$1,500 capital. Incorporators: Daniel D. Healy, M. H. Rogers and Edward Horan.

Buffalo, N. Y.—E. R. Thomas Motor Branch Co., with \$100,000 capital, to deal in automobiles. Incorporators: E. L. Thomas, J. M. Edsall, M. E. Dirnberger, William B. Hurlburt and Charles R. Teaboldt.

Chicago, Ill.—Edgewater Garage, with \$5,000 capital. Incorporators: James F. Mraz, Bessie Mraz and Anton Mraz.

Stapleton, S. I., N. Y.—North American Motor Corporation, with \$10,000 capital, to manufacture motors, etc. Incorporators: Chauncey Cleveland, H. Bernard Layman and Priscilla Wallace.

Worcester, Mass.—Tribe Automatic Headlight Company, with \$200,000 capital. Officers: President. Charles F. Pharaoh; treasurer, George T. Tribe; clerk, Edmund R. Cummins.

Washington, D. C.—The Automobile College of Washington, with \$1,000 to \$25,000 capital. Incorporators: N. Hill, president; R. H. Blakesley, vice-president; L. J. Murphy, secretary and treasurer.



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Automobile Calendar

- July 3.—First annual long-distance motor boat race of the New York Motor Boat Club, from New York to Albany and return.
- July 3.—French Coupe des Voiturettes contest.
- July 3-5.—Straightaway races, Motor Club of Wildwood, N. J.
- July 4.-300-Mile road race, under direction of the Southern California Automobile Dealers Association.
- July 5.—Automobile and Motorcycle Races at Danville, Ill., under the auspices of the Danville Motorcycle Club.
- July 7.—One-gallon Efficiency Contest, under the auspices of the Automobile Club of Buffalo.
- July 7.—Annual contest for the Rochet-Schneider cup, under the auspices of the Automobile Club of Auvergne.
- July 7-17.—Light agricultural motor competition at the Winnipeg Industrial Exhibition.
- July 10.—Santa Monica, Cal., road race, 205 miles, under the auspices of the Automobile Dealers' Association of Southern California.
- July 12.—Start from Detroit, Mich., of the Sixth Annual A. A. A. Tour for the Glidden trophy.
- July 16-17.—A twenty-four hour track race meet on the Bennings track, at Washington, under the auspices of the Maryland Motor Car Racing Association, of Baltimore.
- July 17.—Sealed bonnet endurance contest by the North Jersey Automobile Club of Paterson.
- July 17-26.—An exhibition of agricultural motors at Amiens, France.
- July 19.-Head-lighting Trials, under the auspices of the Royal Automobile Club of Great Britain.
- July 23-24—Reliability and consumption competition in connection with Royal Automobile Club of Great Britain Provincial Meeting.
- July 26-28.—First Annual Automobile Show and Track Races in Amarillo, Texas, under the auspices of the Amarillo Automobile Show Association.
- July 31.—Hill-climbing Contest in Richfield Springs, N. Y.
- July 31.—Automobile Race Meet at Elm Ridge Park, Kansas City, Mo., under the auspices of the Kansas City Automobile Club.
- uly 31.—Annual London to Cowes race, under the auspices of the British Motor Boat Club.
- August 5.- Fourth annual hill-climb on the Algonquin, Ill., hill, under the direction of the Chicago Motor Club.

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- August 11, 12, 13.—Motor Boat Carnival off Newport, R. I., under the auspices of the Newport Yacht Club.
- August 22.—A series of Speed Trials, under the auspices of the Automobile Club of Frankfort-am-Main.
- August 22-29.—Aeroplane races at Rheims. France, under the auspices of the Aero Club of France.
- August 24-27.—Circuit of Ardennes; Liederkerke cup and voiturette race, under the direction of Automobile Club of Belgium.
- August 29-September 3.—Small car competition, under direction Automobile Club of Germany.
- September 4-5.—Mont Ventoux hill-climbing contest, under the auspices of the Vanclusien Automobile Club.
- September 6-11.—Six-days' motor carnival, under the auspices of the Lowell (Mass.) Automobile Club.
- September 11-19.—Florio cup race, under the auspices of the Automobile Club of Bologne, Italy.
- September 12.—Two automobile road races, under the auspices of the Automobile Club of Ostend.
- September 15.—Start of endurance contest from Denver to Mexico City.
- September 19.—Semmering hill-climb.
- October 2-17.—Aeronautical Salon in the Grand Palais. Paris France.
- October 7.—Second annual stock chassis race in Fairmount Park, Philadelphia, under the auspices of the Quaker City Motor Club.
- November 27-December 4.—Automobile Sow in Atlanta, Ga., at the Auditorium Armory.
- December 29-30.—Fourth annual mid-winter endurance contest, under direction of the Quaker City Motor Club.
- December 31-January 7.-New York City, Grand Central Palace; Decennial International Automobile Show. Under management of the American Motor Car Manufacturers' Association with the Importers' Automobile Salon and the Motor and Accessory Manufacturers. Alfred Reeves, general manager, 505 Fifth Avenue, New York City.
- January 8-15.—Tenth Annual National Automobile Show in Madison Square Garden, New York, under the auspices of the Association of Licensed Automobile Manufacturers.
- Feb. 5-12.—Ninth Annual National Automobile Show in Chicago, under the auspices of the National Association of Automobile Manufacturers.

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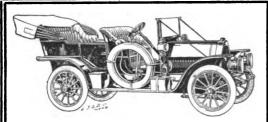
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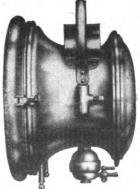
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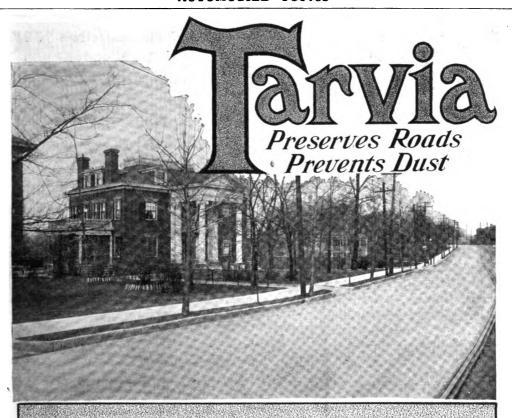
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Madison Road, Cincinnati, is an important macadam thorough. The with very heavy travel from all kinds of vehicles. In the fall of 1907 it became clear that the macadam could not stand the traffic without excessive maintenance cost. Accordingly, one section was treated with rock asphalt, and another with "Tarvia X." The balance was rebuilt in the ordinary style.

In April, 1909, the Cincinnati Superintendent of Street Repairs reported to the Board of Public Service that the Tarvia section was in good shape. The rock asphalt section and the plain macadam, however, were "practically worn out," and he recommended that those sections be resurfaced by scarifying, rolling, covering with a new course of 2-inch stone, and bonding with Tarvia X.

A petition of 125 property owners along the road who suffered from the dust supported this recommendation strongly.

Further investigation showed that the Tarvia X treatment gave good results for two years. The rock asphalt lasted only six months.

The Department, as a result of this experience, decided to use Tarvia X on three miles of the roadway.

There is no material but tarvia now available for road treatment which will fill the small voids, solidify, form a plastic concrete with the stone and stay there undamaged by the weather. Many asphalts disintegrate under the action of water. Oil has little or no bonding power; water sprinkling actually hurts a road. Tarvia alone makes economical low-maintenance, automobile-proof, dustless macadam.

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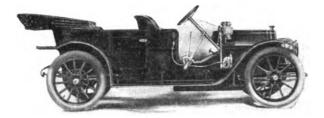
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Mention "Automobile Topics" when writing.



Chalmers-Detroit "30" 1910 Model, \$1,500

The Chalmers-Detroit "30," 1910 Model, has a 115-inch wheel base. That's three inches longer than our "Forty" of last season. It has 34-inch wheels, against 32-inch last season. Tonneau is more roomy and stylish, the hood accordingly longer and higher. This amazing car, with all the lines of the costliest cars---showy, roomy, long, luxurious---sells again this season for \$1500.

Indiana Victory A Triumph of Worth

Capture of Cup at Crown Point by a Chalmers-Detroit "30"-a victory for the construction, workmanship, mechanism, material---the power the vitality of this amazing \$1500 car.

On June 18, at Crown Point, Indiana, signal proof of the astounding value in the Chalmers-Detroit "30" was added to the record of 1909.

For Joe Matson's first place in a Chalmers-Detroit "30" in the great race there that day was no

chance winning.

A victory for his skill, it was tremendously a triumph for the car. The car that could seize the laurels in that gruelling stock car contest had to be a master achievement in mechanism, material, construction, power, speed-above all, in soundness, ability to withstand punishment. The Chalmers-Detroit "30" won.

PERFECT CAR MECHANICALLY

Broken parts, faulty lubrication, a loose connecting-rod, a leaky valve—in a word, any defect would have been fatal. A perfect car mechanically was demanded.

The Chalmers-Detroit "30"—a stock car—won. It is the same car any man would get who pur-chased a Chalmers-Detroit "30" for \$1500 The Chalmers-Detroit "30" was a new car only

a year ago. One could judge it only by the splendid records of the Chalmers-Detroit "Forty."

Its main prestige lay in the fact that Mr. Coffin designed it-the man who designed our "Forty. But \$1500 was a new price—an amazing price. And all the world wondered what sort of car it would buy. Now the records are in.

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RECORDS OF 1909

One of our "30's" has been run more than 32,000 miles, including the path-finding trip from Denver to Mexico City. Never has any car at any price made an equal endurance record.

Owners have paid us for repair parts on all cars shipped during the year just passed exactly \$2.44 per car. We believe that's another world's record.

In the Economy Test, made in New York by the New York Auto Dealers' Association, our "30" made 25.7 miles on a gallon of gasolene.

On a long distance road race its average speed

was 51.5 miles per hour.

Never did a car prove more satisfactory. Never did a car cost so little for upkeep. Mr. Coffin has devoted another year to its study. Yet he has found no mechanical way to improve it.

NO QUESTION OF CHOICE

The tide of automobile demand is turning to these medium-priced cars. Not alone because of their moderate cost, but mainly because of their low cost of upkeep.

Most men find in the Chalmers-Detroit "30" all that they want in a car. And no price can buy more than we give in our "Forty," save unneeded

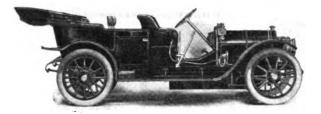
power.

Mention "Automobile Topics" when writing.

Last season these cars had no real competition. This season we have doubled their sightliness without adding a penny of cost. We have even reduced the price by adopting the policy of furnishing the extras, at the lowest possible costmuch cheaper than you could buy them, excepting from us.

There can be no question of choice. There is nothing on the market which begins to compare with the value one gets in these cars.

Chalmers-Detroit Motor



Chalmers-Detroit "Forty" for 1910, \$2750

The Chalmers-Detroit "Forty," 1910 Model, has 122-inch wheel base-ten inches longer than last season. It has 36-inch wheels—two inches larger than last season. Upholstered in hand buffed leather. Magneto free. You should see this car. With all the costly improvements price still remains \$2750. Two extra seats, making it a seven-passenger car, cost only \$75.

Our 1910 Models on Show in July

So the 800 people disappointed in not getting the 1909 models can secure the new cars four or five months before the calendar year begins

When the people awoke to what an amazing car for the money we had created in the 1909 Chalmers-Detroit "30," we couldn't hope to supply the demand.

In its first season we turned away orders for 800 cars of this model—representing \$1,200,000.

Now we announce our 1910 models, on show in July.

Deliveries will begin about August 1st. Get your order in now with your dealer.

For, although we have increased our output for 1010 by 1,000 cars, last year's record indicates we will still be unable to make enough.

LARGER CARS—SAME PRICE

In 1910 we give you even more for the money than before.

Our new Chalmers-Detroit "30"—our \$1500 car—will have a 115-inch wheel base. That's three inches longer than our 1909 "Forty." It will have 34-inch wheels—two inches larger than last season. The hood will be three inches longer and two inches higher—in keeping with the larger body. The tonneau will be large and roomy. And not a car on the market, regardless of price, will have a more stlyish body.

Our 1910 "Forty" will have a 122-inch wheel base—ten inches longer than last season. It will have 36-inch wheels. Our new "Forty" will be upholstered in hand-buffed leather, and a Bosch Magneto will be furnished free.

Yet, with all these costly improvements, not a penny is added to the price of either car. Two extra seats in the "Forty" tonneau, making it a seven-passenger car, will cost only \$75.

Co., Detroit, Michigan

PROFIT STILL NINE PER CENT..

Our profit for 1909 was approximately 9 per cent. For 1910 we figure it will be about the same. Cost of materials has advanced \$75 to \$100 per car. Yet we have more than offset this by increasing our capacity by 1,000 cars.

These 1,000 additional cars will be produced without a dollar's extra cost for management, advertising or overhead expense. Our fixed expense last year was divided by 3,000 cars. This year it is divided by 4,000 cars.

Then, our cars of last season were mechanically perfect—so are not altered mechanically. Therefore, the same tools and machinery serve for another year.

SAVING GOES INTO CARS

Every penny we save in these ways goes to increase the beauty of the cars.

The saving is all spent for size and style and room.

Chalmers-Detroit cars will always give all the value possible to give and retain what would be a fair profit in any business. For 1909 the utmost in worth was given. For 1910 a beauty of line beyond compare is added.

Look at the lines of the 1910 models. There are no handsomer cars at any price.

Send now for our new catalog showing the 1910 improvements. Then let our nearest agent show you the cars themselves.

Members Association of Licensed Automobile
Manufacturers



HERRESHOFF

To Increase the Output of a New Series of Cars

The Harry S. Houpt Company has just concluded arrangements with the Herreshoff Motor Company whereby a more effective co-ordination between the factory and the sales organization will be secured. The change will materially increase the factory production and enable the Houpt Company to extend its distributing field in new territory. The factory will be operated all summer in an effort to keep pace with the insistent demand for the smart, light car of class.

The first series of cars have been sold in a restricted territory. The new series of cars are now ready and it is intended to establish at once new connections in districts in which no representative has yet been appointed. Immediate deliveries of demonstrators can be made of the further refined new model.

In the past six months, applications have been received from more than 500 agents who desire to handle



Owing to the limitation of production, the Houpt Company has been compelled to confine its distribution to a few centres. It is intended under the new arrangement to extend this distribution, reassigning territory and establishing agencies in districts in which it has not been represented.

No car that has ever been introduced has obtained a wider prominence in the first year of its manufacture than the Herreshoff Car. The reason for this has been that it sounded a

new note that accorded with popular demand, set a new standard in motor car construction.

It is the first car that has been built as a light car of the same excellence of material, with the same careful workmanship and proven mechanical principles as characterize the big and costly cars.

The majority of the cars sold in New York City are in the hands of men who have owned and driven cars that rank first among American automobiles, men who know what a motor car should be.

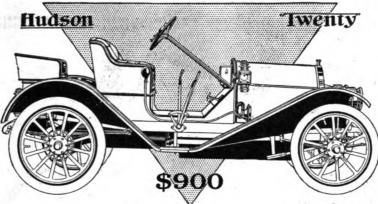
For information regarding agency territory address Sales Manager "I"



Broadway and Sixty-eighth Street, New York City

Mention "Automobile Topics" when writing.

Equipment: Two mrge heallights, generator, two slife oil lamps, tail lamps, full set tools and horn-



With Bosch Magneto, top, Prest-O-Lite tank, double umble scat---\$1050.

- Stylish Speedy Roomy Strong

There have been many low priced cars, but never one so big, strong, speedy and good looking as this one. In the Hudson "Twenty" you get the best automobile value ever offered for less than \$1,000. In this car you find that something called CLASS—that something which other cars at or near this price have lacked.

Most low-priced cars have been too small. In the Hudson "Twenty" you get a BIG car. Note the long wheel base—100 inches. Note the big, strong wheels, the large radiator, big hood, staunch, clean-made frame.

The Hudson "Twenty" has ample leg room. There is no Roadster made, regardless of price, that affords more comfort to those who ride in it. From the front seat to the dash there is a space of 31 inches.

Designers of other cars selling around the price of the

Hudson "Twenty" have not seemed to realize that it is as easy to make a GOOD LOOKING car as it is to make another kind.

another kind.

Here is a car that is good looking. It is big and racy looking. Note the graceful and harmonious lines. Observe the sweep of the fenders and the frame. There is no car with better lines. None from this standpoint more satisfying. Judged by every mechanical and engineering standard this car is thoroughly up-to-date without embodying any experimental features.

Some High Grade Features

The Hudson "Twenty" has a sliding The Hudson "Iwenty" has a sliding gear transmission, selective type, three speeds forward and reverse, such as you find on the Packard, Peerless, Pierce, Lozier and other high grade cars. Most other low-priced cars do not have this type of transmission.

All the Power You Need

The motor is vertical, four cylinder, four cycle, water cooled, known as the Renault type. And Renault motors are the pride of France.

The frame of the Hudson "Twenty" is of the best open hearth stock. It is a few forms and the stock of the best open hearth stock.

is of the best open hearth stock. It is 3½ in. x 1½ in. x 1½ in. section, accurately and carefully riveted together with hot rivets, and braced against all possible strains. Our frames are made by the Hydraulic Pressed Steel Company of Detroit, the company which makes frames also for the high-priced Steams

Single Piece I-Beam Axle

The front axle is a one piece drop-forged I-beam section, of the best grade of open hearth steel, carefully heat treated. The Peerless, Pierce, Mathe-son, Lozier and other high grade cars use drop forged front axles. The rear axle is of the semi-floating type, shaft-driven, proven out by a score of makers.

Perfect Comfort Here

There is more rake to the steering post than is found on the average car.

The springs are of special steel, semi-elliptic in front, and three-quarter-elliptic in the rear, such as you find in the Renault, Chalmers-Detroit, Pierce and

Lubrication is of the pump circulated,

Lubrication is of the pump circulated, constant splash system, which has proved so satisfactory on the Oldsmobile, Chalmers-Detroit and other highly successful cars.

The body is composed of the best grade of ash, carefully placed and securely bolted to the frame. The seats are large and roomy and well upholstered. stered.

It Pleases the Eye

In color the "Twenty" is a rich maroon, with mouldings and edges of bonnet striped in black. Leather is blue black. Fenders, fender irons, pedals, and top irons are enameled black. The radiator, steering column, side lamp brackets, hub caps, and side control levers are of brass. Steps are aluminum. The tires are 32 in. x 3 in. in front

and 32 in. x 3½ in. in the rear. The crank shaft has a tensile strength of 100,000 pounds; the clutch is leather faced, cone type; the clearance is 12½ inches under the steering knuckles.

The Ideal Car

The Hudson "Twenty" is the ideal car at the price. It leaves nothing to be desired.

Nothing experimental about it. Nothing untried.

The "Twenty" has been recognized by the Association of Licensed Automobile Manufacturers. It is the only four cylinder licensed car selling for less than \$1,000.

cylinder licensed car selling for less than \$1,000.

Deliveries will begin in July, and orders will be filled in rotation as re-ceived. Please wire or write for cata-log and name of nearest dealer.

The Men Behind the Hudson

J. L. Hudson, President—Mr. Hudson is a leading, conservative business man and capitalist of Detroit.

Hugh Chalmers, Vice-President—Mr. Chalmers is president of the Chalmers-Detroit Motor Company. He was formerly vice-president and general manager of the National Cash Register Company.

R. B. Jackson, Treasurer and General Manager—Mr. Jackson is a mechanical engineer. He was factory manager for the Olds Motor Works from

R. B. Jackson, Treasurer and General Manager—Mr. Jackson is a mechanical engineer. He was factory manager for the Olds Motor Works from 1903 to 1907.

Geo. W. Dunham, Chief Engineer and Designer—Mr. Dunham was chief engineer of the American Motor Carriage Company from 1901 to 1904. In the latter year he became associated with the Olds Motor Works in a designing capacity. He was chief engineer of the Olds Motor Works from early 11909. Until March 1st, 1909. Mr. Dunham's success in the past as a designer of high-grade motor cars that gave satisfaction to their owners is the best proof that the Hudson "Twenty" will give satisfaction.

R. D. Chapin, Secretary—Mr. Chapin is treasurer and general manager of the Chalmers-Detroit Motor Company.

H. E. Coffin, Vice-President and Chief Engineer of the Chalmers-Detroit Motor Company, is a member of the board of directors.

HUDSON MOTOR CAR COMPANY

(Members)

Detroit, Michigan



Studebaker

Automobiles

If you are of a mechanical turn, the perfect mechanism of the STUDEBAKER will appeal to you.

If you like comfort and luxury, the appointments of the car will strike home.

If you want a car that will take you anywhere and bring you back without the usual road trouble, the reliability of the STUDEBAKER will settle the question for you.

If you are particular about style, you will find genuine beauty in our designs, taste in the minor fittings and a certain individuality that gets far away from the "factory-made" feeling.

We have letters by the dozens from many prominent people who have driven STUDEBAKER cars with perfect satisfaction, over all kinds of roads and in both hemispheres.

We will be glad to let you see what they say about their cars any time you call. Many of them have owned various makes of the highest priced foreign cars—but now swear by the STUDEBAKER.

Studebaker Automobile Co.

MAIN OFFICE: Cleveland, Ohio

FACTORY: South Bend, Ind.

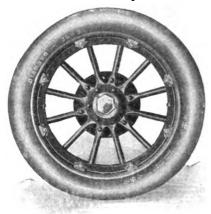
BRANCH OFFICES: New York, Boston, Philadelphia, Chicago, San Francisco, Stockton, Cal.; Sacramento, Cal.; Kansas City, Mo.; Portland, Ore.; Seattle, Wash.; Salt Lake City, Utah; Dallas, Tex.; Denver, Col.

PROMPT DELIVERIES

The New Diamond Demountable Rim

The Already Inflated Kind

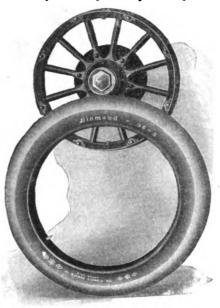
Saves Trouble, Annoyance, Delay



An indispensable equipment for the motorist.

Injured tire on rim can be removed and new rim with tire already inflated and ready to run applied in scarcely the time it takes to jack up the wheel.

Can't come off unless it's taken off.



The Diamond Rubber Co. Akron, Ohio

REG. U. A. PAT. OFF

We guarantee tires only on inspected rims. See that rim bears mark of inspection as shown herewith.



"You Screw the Battery In-We've Done the Rest."

If you were an electrical engineer—you'd never let your new Car come to you with Storage Batteries for Reserve Ignition.

You'd certainly prefer a battery set that requires attention

only once or twice in the whole season !- and that's all the



PATTERSON WIRELESS BATTERY SYSTEM

requires. Its fundamental principle is a SCREW TOP BATTERY CELL which, without wires or binding posts, screws into a Solid Hard Rubber Plate. automatically making all connections.

Solid Hard Rubber Plate, automatically making all connections.

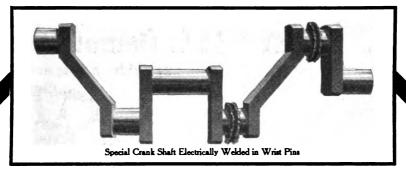
This Hard Rubber Plate forms a solid, substantial, waterproof cover for the Battery Box, and as all Contacts are moulded solid into this Rubber Plate, no possible loose connections, bad contacts, trouble from dampness, or anything of this sort is possible. The Battery Cells are SUSPENDED from the Plate and do not rest on any surface where dampness can collect.

Send for Bulletin T

STANLEY & PATTERSON, 23 Murray St., New York

NOTE.—Battery Cells to fit "PATTERSON" WIRELESS DRY BATTERY HOLDERS are now regularly manufactured by all prominent makers of Dry Cell Batteries throughout the country. When ordering Batteries simply specify that the "PATTERSON" SCREW TOP CELL is required in place of the old Binding Post type of cell.

Do not forget that you can use old style binding post cells if, in an emergency, "screw tops" are not at hand.



We Solve the Difficult Problems

that are continually confronting the automobile manufacturers of today by the aid of

ELECTRIC WELDING

There are still a few people who consider Electric Welding applicable only to parts where physical strength is of little or no importance. But this is far from being the true facts in the case, as we can emphatically prove, and if you are one of those prejudiced persons we only ask you to send for our "Booklet A," illustrating a few of the more important parts we have been so successful in welding by our process. If this will not convince you that Electric Welding is practical, then send us a sample or two of the work you wish to accomplish so we can make a few welds for you to test out. We know we can give you full satisfaction in both quality and price.



Front "I Beam" Axle Electrically Welded in Centre

THE STANDARD WELDING CO.

Western Representative L. F. McCLERNAN 1064 Monadnock Block CHICAGO

CLEVELAND

Eastern Representative
L. D. ROCKWELL
United States Express Bldg.
NEW YORK

TO THE MOTORIST WHO IS DOWN ON HIS "TIRE LUCK"

You don't hear the man who uses Morgan & Wright tires saying much about his "tire luck," good or bad.

After he has used a pair or two, he gets out of the habit of ascribing the completion of a trip or a tour without tire trouble to good fortune. He lays it to "GOOD TIRES"—nothing else. He knows that—take tires made as Morgan & Wright tires are, out of the highest grade of materials with a painstaking care in regard to the minutest details of construction, and give them proper care—tire service ceases to be a matter of chance.

He gets a confidence in his tire equipment that adds much to the enjoyment of his car, and a freedom from repair bills that is a big help to his bank account.

There is no truer saying in motordom than that---

MORGAN & WRIGHT TIRES

ARE GOOD TIRES

Dealers everywhere sell them at the same price you are asked to pay for other brands.

MORGAN & WRIGHT, DETROIT

"Billiken," the God of Motor Cars



I am "Billiken"

The-God-of-Things-as-They-Ought-to-Be

Tickle His Toes and See Him Smile

I'm the God of Motor Cars,
I control the Lucky Stars,
Breaks and accidents no longer will assail you.
Place me on your engine hood
And I'll bring no end of good;
For a hundred years I promise not to fail you.
—Billikan.

My believers are everywhere. I bring luck—chase away the blues—dissolve frowns. You have to laugh when I grin.

I do not claim magic power, but everywhere, everyone says I'm more potent than a rabbit's foot in the hind pocket of a seventh son of a seventh son.

This illustration represents a Billiken Bas-Relief $4\frac{1}{2}$ inches high, made of brass with the figure of Billiken embossed about $\frac{5}{8}$ of an inch at the highest point from the oval surface. It has small holes at the sides, top and bottom, so that it can be easily attached to the front of a radiator with a fine brass wire furnished.

Sent Postpaid on Receipt of Post-office Order for \$1.00

Money refunded if not as represented

M-Y-Co., Dept. A, 203 So. Canal St., CHICAGO.

REFERENCE: Continental National Bank, Chicago

Mention "Automobile Topics" when writing.



Does your tire equipment fit this description?

QUICK ENOUGH
SIMPLE ENOUGH SAFE ENOUGH
SERVICE ENOUGH

It exactly describes the

Fisk Removable Rim

QUICK ENOUGH MEANS a punctured tire can be changed in from 1 to 3 minutes.

SIMPLE ENOUGH MEANS so simple that a change can be made on the road with no hard work and with no pumping up of tires.

SAFE ENOUGH MEANS absolutely safe—no possibility of tire being wrenched from the rim.

SERVICE ENOUGH MEANS the maximum mileage that can be given on the car you are using.

You are not getting your share of pleasure in motoring unless your equipment meets each and every one of these requirements.

We guarantee Fisk Bolted-On, Clincher and Q. D. Tires only on rims bearing inspector's stamp shown herewith.



THE FISK RUBBER COMPANY
4 Main Street, Chicopee Falls, Mass.



Winnings in the Prince Henry Tour, 1909



The

Master Magneto!

Prize of Austrian Automobil Club		HERR KITTSTEINER
Prize City of Budapest		. HERR DR. OPEL
Prize Hungarian Automobil Club		HERR D. JESSURUN
Prize Bavarian Automobil Club		HERR LINDPAINTNER
Best Time Gubener Speed Trials, 2.47 4-5 .		. HERR MOUSON
Best Time Forstenrieder Park Trials, 2.46 4-5		. HERR MOUSON
Second Best Time Forstenrieder Park Trials	•	HERR KITTSTEINER

KAISERPREIS 1909

LIEUT. C. F. G. LANGENSCHEIDT

"The greatest difficulty is first to win a reputation; the next to keep it while you live. And nothing but sterling excellence can preserve your name."—HAYDON.

Herren Unterberg & Helmle,

Rüsselsheim—A/M.

Durlach, Baden:

I write to say, without solicitation on your part, that I have for a long time used in large quantities the U & H MASTER MAGNETO exclusively on my product, the OPEL CARS. I am therefore able, through my exceedingly pleasant, satisfactory experience with your Magnetos on tours, in our shops and sales departments, to commend them in the highest degree, for the U & H Magnetos are well designed and constructed, and have the best of material and fine workmanship embodied in them. Hence you may refer, by permission, to me for reference as to your magneto's great efficiency.

Hochachtungsvoll,

ADAM OPEL.

J.J.BRETZ COMPANY

Jole Importers, TIMES BUILDING, NEW YORK

N. B.—In the Prince Henry Tour F. & S. Ball Bearings were used on the First 12 Cars (excepting the 7th Car), thus duplicating last year's win on F. & S. Ball Bearings.



Vol. XVIII.

NEW YORK, JULY 10, 1909,

TABLE OF CONTENTS

No. 14.

Ferrying Across the Susquehanna River on the Way to Washington-	ethe Land-	AGE
ingF	rontispiece	A I A
Topics	Tomaspicee	010
A. A. A. 2,600 Miles Tour Plans and Preparations		7.7
Many Spectators See Good Pacing at Wildwood	Illustrated	024
Many Spectators See Good Racing at Wildwood	inustrated	026
Third Degree for Non-Jersey Motorists		02-
Plainfield Has a Successful Hill Climb	Illustrated	92/
Indianapolis Speedway to Open August 19	Illustrated	92/
Big Speedway Project for Atlanta	Illustrated	929
Program for Good Roads Convention	. Illustrated	931
Stevens-Duryea Line for 1910	Tilmatanta	932
Stevens-Duryea Line for 1910.	. Illustrated	933
Automobile Topics Touring Supplement—New York to Mohonk Lake To	our	937
Orphans' Day Had a General Observance	• • • • • • • • • • • • •	941
Changes in Massachusetts Law	• • • • • • • • • • • •	942
Grand Jury Hits at Joy Riding	• • • • • • • • • • • •	943
Text of New York's Taxicab Ordinance	• • • • • • • • • • • •	944
How to Crank a Car	'	940
Preparing to Give Tourists a Strenuous Time	• • • • • • • • • • • • •	952
An Exhortation Under Three Heads		953
Causes of Magneto Troubles		954
New Route from Westchester to Long Island		955
Scotland's Big Annual Trials		956
Cabled Credentials of Evans		957
Prolonging the Life of Macadam		958
Good Sport at Briarcliff Manor		959
Why City-Owned Cars Go Wrong	Editorial	960
Not An Infant Industry—Yet	Editorial	961
The New Winton Six 48 hp		
Lane 1010 Models at Lower Prices		
Winton Men Make Merry		664
Biggest Tires Ever Fitted to an Automobile	Illustrated	065
Index to Advertisers		066
News Notes		
Incorporations		
Automobile Calendar		
Automobile Calendar		9/

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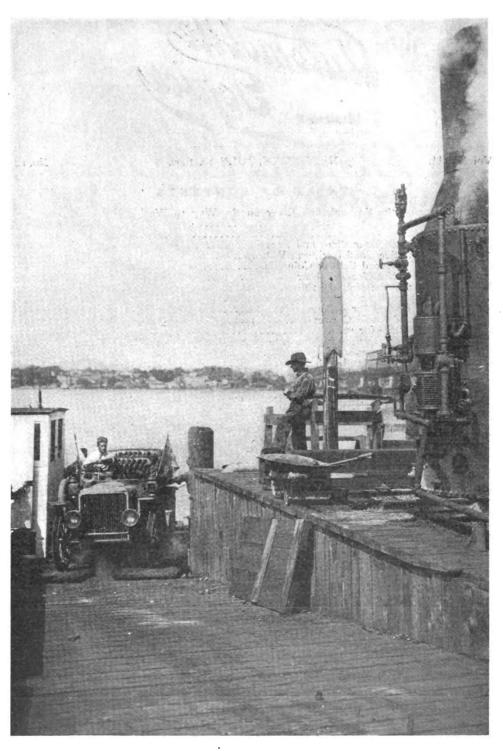
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FERRYING ACROSS THE SUSQUEHANNA RIVER ON THE WAY TO WASHINGTON—THE LANDING



THE AUTOMOBILE USERS' WEEKLY

Vol. XVIII.

NEW YORK, JULY 10, 1909,

No. 14.

TOPIC

Accidents with automobiles are almost invariably caused by lack of care exercised by the driver. He is usually of the type fond

of taking chances, and every well-posted motorist knows that taking chances is very bad policy. To descend a hill without being sure that the brakes are all right is to make oneself an accessory to any accident that may occur, yet a surprising number of drivers will do exactly this. It is only when the vehicle attains high speed and it becomes necessary to check it that the brakes are applied—and sometimes found wanting. When this occurs the driver either loses his presence of mind and makes a botch of things generally, or it is too late to apply a remedy, and the inevitable accident happens. Similarly, the driver who takes corners at such speed that he barely gets around in safety, will find that he has no lee way whatever, and if the corner is a little sharper than he thought disaster follows.

The modern automobile is a machine of infinite possibilities. It can accomplish wonders without even the semblance of an accident or breakdown; on the other hand, it is, like fire the worst possible kind of a master. Once let it get the upper hand, and the consequences are lamentable to contemplate. It is for this reason that the "take no chances" cry is so loud and insistent. Those who disregard it always face disaster, and they must take the consequences. What these consequences are we well know—and if we didn't the newspapers would tell us—with exaggerations.

The revival of the old-fashioned inn is one of the good things that the automobile is to bring about—is, in fact, bringing about now. It will take quite a while to accomplish this, however, and meanwhile tourists frequently have to put up with pretty poor accommodations. About as good an example of this as we have heard of is given by the Automobile Club of Philadelphia, in its route directions for a

tour to Cape Charles, Va. On this route the logical night stop is in a place which is marked to contain a hotel that has very good room accommodations, but very poor food. About ten miles farther on is a town which has a hotel just the reverse of the one first mentioned—the food is excellent, but the room accommodations are very poor. What a pity it is that tourists could not partake of food at one hotel and sleep at the other.

Fireflies have been very numerous in New Jersey this year, but this week saw rast increase in them. The increase was due to the new law requiring all vehicles to carry lights after sundown becoming effective. The law provides that lights must be readily discernible at a distance of 250 feet, but considerable latitude is being observed in this respect, hence the firefly effect referred to. There was considerable opposition to the bill in the Legislature, and now the drivers of horse-drawn vehicles are loud in their complaints. It remains to be seen whether the law will really be enforced.

An automobile is playing a conspicuous part in the suffragette campaign in Boston these days. Recently, several Boston society women, who are advocates of "woman's rights to vote," formed a campaign party and made rounds of the Hub, speaking from the tonneau of a big touring car.

In contradicting the report that he has lost his nerve, a well-known racing man, who is preparing to return to the speed game, although not on horse tracks, is quoted as saying: "I will follow 'Old Glory' to the death, if it is over the trenches and barriers that surround all of the race tracks in the United States, while the roll of dust in our wake will seem like a cloud of valley smoke to the enemy, with the roar of the engine as of artillery fire. This is the year that I am coming back into my own." What a flowery declaration!

It is pointed out that in this year's A. A. A. tour, for the first time, a buggy-type car will be a contestant. It is peculiarly appropriate that this distinctly western product should participate in an event which has such a decided western flavor. There are tens of thousands of farmers who have a predilection for the "gasolene buggy," and the sight of one bowling along in competition with the orthodox type will do much to convince them that they have made no mistake. The buggy has a vast future and its makers do the right thing when they enter a competition of this kind.

Contests are still held to be excellent "trying out" methods for cars that long ago ceased to be in need of demonstration. To this, and the fact that they constitute the best kind of advertising, is due the continued popularity of contests. Even when a maker has everything sold he continues to enter contests, finding in them sufficient return to warrant the outlay. The public unquestionably watches contests and is usually able to discern what the results mean. Many a reputation has been made by a particularly good performance, while others have suffered as the result of a poor one. It is a game, but one in which merit and skill in handling counts.

A. A. A. 2600 Miles Tour Plans and Preparations

At precisely 7 o'clock Monday morning, July 10, the first car will be sent away and the sixth annual tour of the American Automobile Association will be under way. Nearly fifty cars will start, competing for the Glidden, Hower and Detroit trophies, and not until Minneapolis, Denver and Kansas City have been reached will the winners be known. Detroit is the starting place, and a!l this week the tourists have been gathering there and the townspeople have been preparing to give the tour a rousing send-off.

The tour this year is the most arduous that has been projected. The distance is a thousand miles more than that of any previous contest for the Glidden trophy, and the rules much more exacting. The route leads the participants into territory not previously traveled, and there will be many novel features. The cars are to go northwest to Minneapolis from Detroit, next to Denver, and then 750 miles back to Kansas City, where the tour will disband. The itinerary, giving the names of the places where the overnight stops will be made, is as follows:

July 12.—Detroit to Kalamazoo, Mich., 142.3 miles.

July 13.—Kalamazoo to Chicago, Ill., 173.3 miles.

July 14.—Chicago to Madison, Wis., 175.2 miles.

July 15.-Madison to La Cross. Wis., 154.4 miles.

July 16.—La Cross to Minneapolis, Minn., 177.8 miles.

July 17-18.—At Minneapolis.

July 19.-Minneapolis to Mankato, Minn., 132 miles.

July 20.-Mankato to Fort Dodge, Ia., 138.6 miles.

July 21.—Fort Dodge to Council Bluffs, Ia., 181 miles.

July 21.—Council Bluffs to Kearney, Neb., 200.2 miles.

July 23.—Kearney to Julesburg, Colo., 206.2 miles.

July 24.—Julesburg to Denver, Colo., 204.8 miles,

July 25-26.

July 27.—Denver to Hugo, Colo., 173.5 miles.

July 28.—Hugo to Oakley, Kan., 165 miles.

July 29.—Oakley to Salina, Kan., 199.7 miles.

July 30.—Salina to Kansas City, Mo., 212.8 miles.

The total distance is 2,636.8 miles.

The route is indicated more fully by the following itinerary, giving the principal places passed between the night stops:

Detroit, Ann Arbor, Jackson, Creek, Kalamazoo, Mich.; South Bend, La Porte, Ind.; Chicago, Waukegan, Ill.; Racine, Milwaukee, Madison, La Crosse, Wis.; St. Paul, Minneapolis, Mankato, Minn.; Fort Dodge, Council Bluffs, Ia.; Omaha, Fremont, Grand Island, Kearney, Cozad, North Platte, Neb.; Julesburg, Fort Morgan, Denver, Colorado Springs, Hugo, Colo.; Sharon Springs, Oakley, Hays, Salina, Topeka and Kansas City, Mo.

For the benefit of those who will want te communicate with persons on the tour, Chairman F. B. Hower, of the A. A. A. Contest Board, has issued a list telling where to address mail at the various places. This is as follows, the date of the tourists' arrival being given first.

July 12.—Kalamazoo, Mich., Burdick House.

July 13.—Chicago, Ill., The Annex. July 14.—Madison, Wis., Avenue Hotel. July 15.—La Crosse, Wis., Stoddard Ho-

July 16.—Minneapolis, Minn., Hotel.

19.-Mankato, Minn., Saulpaugh July Hotel.

July 20.—Fort Dodge, Ia., General Dclivery.

July 22.—Kearney, Neb., General Delivery.

July 23.—Julesburg, Col., General Delivery.

July 24.—Denver, Colo., to be announced at Detroit or Chicago.

July 27.—Hugo, Colo., General Delivery.

July 28.—Oakley, Kan., General Delivery.

July 29.—Salina, Kan., General Delivery. July 30.—Kansas City, Mo., to be announced at Detroit or Chicago.

Express packages should be sent to the hotel when one is given as the mail address. At Fort Dodge, Ia., express matter should be sent care of the station agent of the Great Western Railroad. At Kearney, Julesburg, Hugo, Oakley and Salina, anything sent by express may be addressed in care of the Union Pacific station agent.

Every year there has been trouble finding over-night accommodations for the two hundred and odd tired, dirty and hungry participants of the tour, but this year the problem was a really formidable one, owing to the size of some of the places where is is necessary to call a halt. These details Chairman Hower, of the A. A. A. Touring Board. had to settle and he finally found that the only way possible to run the tour over the chosen route would be to engage sleeping and dining cars, to be side-tracked at the night stops from Fort Dodge to the finish, which will be ten and a half days. The Pullman people would not permit the cars to be summoned and dismissed at will, so after they are once brought into requisition they will have to be used (or at least paid for) even in the places where hotel accommodations are to be had. The arrangements, as they stood just before the start, were for six sleeping cars, three dining cars and a headquarters car for the officials and their out-At Council Bluffs a baggage car will be added for the use of the tire makers who send along supplies. though the sleeping and dining cars will be used at Council Bluffs, the headquarters will be at the Grand Hotel. The tourists will sleep in the Pullman berths and will get not only their dinner at night and their breakfast in the dining cars, but also will receive each day a lunch put up in a box. Concerning the arrangement for the Pullman cars, Chairman Hower has issued a special notice to participate which, in part, reads:

There has been some difficulty in making arrangements with the Pullman people, but through the efforts of F. C. Donald. Commissioner of the Central Passenger Association, we have been successful in completing what promises to be very satisfactory arrangements. For the ten and one-half days the contestants will rely on the Pullman service, there will be a charge of \$7.45 for each person, making a total of \$78.23 for each person for the entire number of days. This charge includes breakfast, lunch, dinner and lodging. Quite naturally it was necessary for us, in completing these arrangements, to agree to pay the Pullman company the entire amount prior to the start, as they must complete their negotiations for the entire trip, and we would ask that you forward us a check for \$78.23 for each person assigned to your various cars.'

This price, it is estimated, is not more than it usually has cost the tourists per day, all told, when they stopped at the big hotels.

The Pontchartrain Hotel, where Chairman Hower has been since Friday, July 9, is the headquarters in Detroit.

It is notable that the conditions for the 1909 tour are wholly different from those of former years. For the first time the Glidden trophy is up as a prize for an individual, to be held by him for one year. It will no longer go to a club nor be competed for by teams. In order to permit of this, and of the increased distance, it was necessary that the deed of gift be altered, and this was done with the consent of the donor, Charles J. Glidden, who will be on the tour.

Besides the Glidden trophy there are two others, each of which becomes the permanent possession of its winner this year. First of these is the Hower trophy for runabouts, donated by F. B.

Hower, chairman of the A. A. A. Contest Board, and manager of the tour; this will be the third Hower trophy to be awarded. The other prize is a new one offered under unusual circumstances. It is a trophy for the miniature tonneau car making the best score and is known as the Detroit Cup. appreciation of the honor of having the tour start from their city, the members of the Detroit Board of Commerce agreed to donate a trophy to be competed for by miniature tonneau cars. The Mayor and Common Council of the city got ahead of the merchants, however, and for the first time on record an appropriation from the city treasury was voted for a trophy, without the matter being referred to a committee. The Common Council voted \$250 for the prize and a committee headed by Mayor Breitmeyer was appointed to make the purchase. The Mayor found the sum insufficient and added \$250 from his private purse.

The rules for 1909 are more strict than any former set and cars will be penalized in fractional marks for any work done on them. All the extra parts and tools carried will be listed, an observer will ride on each car, and there will be an inspection of the parts and tools at the finish, and perhaps during the tour. The system of penalization has been worked out by tenths of a point, so as to make it reasonably certain that a winner will be evolved, and vet no car can be heavily penalized for repairs that are trivial and quite ordi-The cars will be divided into five classes this year, as follows:

Class A.—Cars listed at \$3,751 and upward.

Class B.—Cars listed at \$2,451 to \$3,750 inclusive.

Class C.—Cars listed at \$1.751 to \$2.450 inclusive.

Class D.—Cars listed at \$1,000 to \$1,750 inclusive.

Class E.—Cars listed at \$999 and under

Cars competing for the Glidden trophy must consist of a regular touring chassis, mounted by a full touring body and carrying four passengers, or equivalent ballast. For the Hower trophy any regular stock chassis, mounted by a runabout body carring at least two persons may compete. Any stock chassis mounted by a miniature tonneau and carrying four persons, or the equivalent ballast, may compete for the Detroit Cup. Each class or entrant will have different running schedules, but the penalties will be the same for all.

Following is the entry list, with official numbers, as it stood on July 3, the driver's name being given after that of the car, in such cases as the name was furnished with the entry:

For the Glidden Trophy.—1, Premier, Webb Jay; 2, Premier; 3, Chalmers-Detroit, William Bolger; 4. Marmon, H. C. Marmon; 5. Marmon, Frank E. Wing; 6, E-M-F.; 7, E-M-F.; 8, E-M-F.; 9, Maxwell, W. F. Smith; 10, Jewel, C. P. Bernhardt; 11, Pierce-Arrow, F. S. Dey; 12, Pierce-Arrow, Walt Winchester; 14, Glide, A. Y. Bartholomew; 15, Thomas, G. F. Fries; 16, Midland, E. O. Hayes; 17, Stoddard-Dayton; 18, Stoddard-Dayton; 1), White.

For the Hower Trophy.—100, Moline; 101, Moline; 102, Moline; 103. Brush; 104. Brush; 105. Chalmers-Detroit; J. Machasky; 106, Hupmobile, F. Stineman; 107. Maxwell, W. F. Smith; 108, Pierce-Arrow, J. S. Williams; 109, Pierce-Arrow, C. Schofeld; 110, McIntyre, Frank Goodwin; 111, Stoddard-Dayton; 112, Jewel, Jack Shimp; 114, Mason; 115, Lexington, J. C. Moore; 116, Stoddard-Dayton.

For the Detroit Trophy.—51, American Simplex: 52, Chalmers-Detroit; 53, Premier, H. O. Smith.

Non-Contestants.—75 Rapid Truck; 76. Automobile and Motor Age car. George Schuester; 77. Diamond Rubber Company; 78, B. F. Goodrich Co.; 79. Press car; 80, Maxwell, Press car.

Official Cars.—98, E-M-F., pilot; 99, Premier, Ray McNamara, chairman's car; 97, E-M-F., pilot; 96, Acme, secretary an'l starter's car.

The numbers given are subject to change.

Many Spectators See Good Racing at Wildwood

Wildwood, N. J., was the mecca for New York, Pennsylvania and New Jersey motorists on the occasion of the running of the third annual Independence Day automobile races of the Motor Club of Wildwood, on July 5. Len Zengle became the star of the day when he piloted a 60 hp. Chadwick over the one-mile straightaway course on North Wildwood Speedway in 41 seconds, which was 1 3-5 seconds faster than Schill in a Fiat.

Time trials, in which the driver was allowed two trials, were run, and the Chadwick also made the best time in that event. Zengle in the time trials event negotiated the course in the Chadwick in 44 seconds, which was 5 seconds faster than the time made by his nearest competitor, Dennison in a Knox. This time was made in the face of a stiff southwest wind, which greatly retarded the speed of the car, and after proving the superiorty of his

machine by making the best time in the kilometer time trials, Zengle decided to try a mile against time in the opposite direction from which the other events had been run. He drove his car with the wind from the lower to the upper end of the course in record time.

A record breaking crowd witnessed the running of the events and the special grand stands erected on both sides of the course at the finishing point were crowded long before the races were scheduled to start. The beautiful weather, a holiday, and the proximity of the course to New York and Philadelphia, attracted thousands of motor car racing enthusiasts.

The local police were assisted in keeping the track clear of the crowds by the Ninth Company of the Boy's Brigade, an organization attached to a Philadelphia Presbyterian Church, who were at their summer camp in

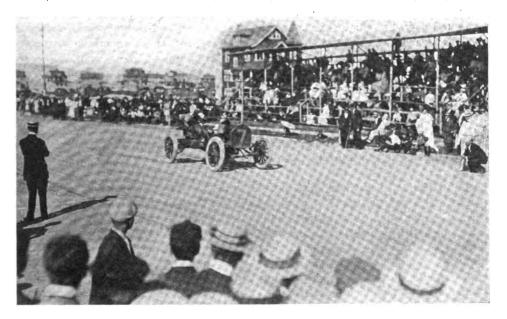


SPECTATORS WAITING FOR AN EXCITING MOMENT

Wildwood. Uniformed in khaki and carrying regulation rifles the boys were stationed at intervals of twenty yards along the course, and succeeded in keeping the track clear as efficiently as could have been done by a body of regular infantry.

Dennison piloted his 48 hp. Knox over the course in the fastest time.

A boardwalk parade had been planned by those in charge, but the crowd, which was estimated at 10,000 persons, was so great it was decided that it would be dangerous to attempt



GRAND STAND AND FINISHING POINT

The course, on which the Borough of Wildwood had spent \$10,000 to have put in trim for the races, was in excellent condition, and shortly after 2 o'clock, F. J. Wagner, the official starter, sent the first car away from the post. The finish of the first heat was the most exciting event of the day. The cars came flying toward the tape with but inches separating them. After they crossed the line a consultation among the judges, the referee, W. C. Crosby announced the race to be a dead This race was between Alfred Dennison in a Knox, and Charles Stutz in a Marion. In the final heat of this event, which was a handicap affair with one second allowed for each \$200 value. to hold the parade on the promenade, and it was held on the avenue. A number of handsomely decorated machines participated in the affair, and the handsome mounted silver shield donated by Charles E. Epler for the most beautifully decorated car was won by Harry A. Bonnell, of East Orange, N. J., a member of the New Jersey Automobile and Motor Club. Mr. Bonnell drove a large Maxwell touring car.

The summary of the races:

Event No. 1.—Handicap, open to gasolene cars—48 hp. Knox (Dennison) first, time 1.08; Atlas (Elmer Knox) second, 32-35 Marion (Stutz) third.

Event No. 3.—Handicap, for gasolene cars costing between \$850 and \$2,000—32-35 hp. Marion (Stutz) first, time 1.14 2-5;

Ruick (Wilkie) second, 28 hp. Overland (Rice) third.

Event No. 4.—Free-for-all—60 hp. Chadwick (Zengle) first, time 482-5; 48 hp. Knox (Dennison) second, 38 hp. Knox (W. A. Bourque) third.

Event No. 6.—Handicap, for gasolene cars costing between \$3,000 to \$4,000—38 hp. Knox (Bourque) first, time 1.08; 40 hp. Chalmers-Detroit (Rodgers) second, 38 hp. Knox (Westervelt) third.

Event No. 7.—Handicap for gasolene cars costing between \$3,000 to \$4,000-48 hp. Allen-Kingston (Hughes) first. time 0.58; 48 hp. Knox (Dennison) second.

Event No. 8.—Special, for gasolene cars

only; all makes and prices; handicapped according to reputation of car and driver—32-35 hp. Marion (Stutz) first, time I.II 3-5; 38 hp. Knox (Dennison) second, 48 hp. Knox (Bourque) third.

Event No. 9.—Time trials over one mile course—60 hp. Chadwick (Zengle) first. time 0.44; 48 hp. Knox (Dennison) second, Allen-Kingston (Hughes) third.

Event No. 10.—Kilometer time trials— 60 hp. Chadwick (Zengle) first, time 0.26; Knox (Dennison) second, Knox (Bourque) third, Buick (Wilkie) fourth.

Event 2 for gasolene cars costing under \$850, and Event 5, a special affair for steam cars, were declared off owing to lack of entries.

Four-Year's Old Record Falls at Columbus

The two-days' automobile racing carnival under the auspices of the Columbus (O.) Automobile Club on the Columbus Driving Park track, July 2 and 3, resulted in the smashing of a record that had stood for four years. This occurred on the second day of the meet, when Robert Burman, driving a Buick, won the 100-mile race in 1 hour 44 minutes, clipping 9 minutes 21 4-5 seconds from the track record for the distance, made by Jack Clemens, at Indianapolis, on November 4, 1905.

The century race, which was the most exciting event during the two days, was won by Burman after a gruelling contest with Lewis Strang, also driving a Buick. Five cars, Buick (Strang), Buick (De Witt), Chalmers-Detroit Lorimer), Chalmers-Detroit (Cannon), and Buick (Burman), came to the mark for the big event on the programme. The two Chalmers-Detroits were forced to retire shortly after passing the quarter century mark, and De Witt was called off the track after going half the distance.

Commencing with the seventieth mile the records began to go. Strang was leading at this stage, with Burman fully a lap behind. Strang held the lead for twenty-five miles, and the time

for every mile from the seventieth to the ninety-fifth was faster than the record. On the ninety-second lap a shee on Strang's machine blew out, but the winner of the Savannah, Lowell and Briarcliff races did not stop. Three miles further on another shoe gave out and Strang continued in the race with two intact tires. Gradually Burman overhauled his teammate and on the ninety-sixth mile he passed Strang. On the ninety-eighth mile a third shoe blew out. Burman stayed in front to the end and finished the race in I hour 44 min-Strang finished with one good utes. shoe.

During the first day of the carnival Chevrolet did his usual stunt of crashing through fences. During the day his machine went through two of them. but luck still followed him and he was uninjured, although the machines were badly damaged. Joe Nelson was acting as the Cobe winner's mechanician when he went into one fence and Nelson was badly shaken up. Herman Hoster, another driver, also met with an accident while driving his car, but was not seriously injured.

Barney Oldfield made two attempts to pass the five-mile track record, but his efforts were fruitless.

Third Degree for Non-Jersey Motorists

Non-resident tourists in New Jersey have been breaking the new law permitting them to use the State's highways, according to Commissioner J. B. Smith, of the Department of Motor Vehicles of New Jersey. Therefore, he has instructed all inspectors of the department and police officers throughout the State to stop all motor vehicles not displaying a regular New Jersey registration number for the purpose of ascertaining whether they are being legally operated.

In a letter sent to the inspectors and police officers Mr. Smith says:

Notwithstanding what must be conceded to be very definite and explicit instructions affixed to every non-resident limited tourist's license certificate, in addition to the verbal instructions given to such licensees by the department's agents, we find that the law, either through ignorance or design, is being very flagrantly violated. The licensee, notwithstanding his oath to comply with the provisions of the law, in many instances neglects to in-

dicate on the tag the days upon which the license is being used within the State, does not carry with him his resignation certificate, and directly disobeys the express provisions of the act by displaying his non-resident's license directly over rather than alongside the identification mark of his State of residence.

It accordingly becomes necessary to direct all motor vehicle inspectors, and to suggest to all other peace officers, the desirability of stopping, every motor vehicle which does not display a regular New Jersey registration number for the purpose of ascertaining, first, whether the driver possesses a limited tourists' license; second, whether the day or days upon which the car has been used within the State have been properly indicated according to law on the license tag, and third, whether such tag is properly displayed according to law, and if the violation of either of these provisions is wilful, to take such action as seems to be indicated.

It is not the desire of the department to unnecessarily embarrass the holders of non-resident license certificates, but a reasonable compliance with the provisions of the act must be maintained.

Plainfield Has a Successful Hill-Climb

Automobiles played a conspicuous part in the Charter Day celebration at Plainfield, N. J., on July 5, 6 and 7. There was a motor car parade and a hill-climbing contest for automobiles on the second day of the celebration.

The hill-climb was held on Johnston's Drive, up Watchung Mountain, in North Plainfield, and a number of prominent cars and drivers participated in the events. The course was seveneighths of a mile long, with an average grade of 15 per cent, and contained nine difficult curves, including several pairpin turns. There were six events carded, the principal one being the free-forall in which the high-powered machines were entered. A large crowd attended the contests, the weather being ideal and the course in excellent condition.

The free-for-all event was won by a

Stearns "40," driven by Rutherford, who negotiated the hill in 1.28, several seconds in advance of Rankin in a Chalmers-Detroit.

An accident occurred during the climb which nearly resulted fatally for a driver and mechanician. As George Weldon and William Bolen were riding in a big National up the incline, the car struck a hidden wooden culvert, turned turtle and went over an embankment. Weldon and Bolen were thrown out, the former receiving a scalp wound and a deep cut in the face, while Bolen's shoulder was fractured.

The summaries:

First Event.—For cars selling up to \$850—Maxwell (Sichinger) first, Maxwell (See) secod, Hupmobile (Martin) third: time, 1.38½.

Second Event.—For cars selling from



CHALMERS-DETROIT MAKING THE ASCENT

\$851 to \$1,250—Buick (Warren) first. Overland (Reiss) second; time, 1.44.

Third Event.—For cars selling from \$1,251 to \$2,000—Marion (Stutz) first, Herreshoff (Robertson) second, Buick (Dutcher) third; time, 1.364-5.

Fourth Event. — Free-for-all — Stearns (Rutherford) first. Chalmers-Detroit (Rankin) second, Simplex (Heilmeyer) third;

time 1.28.

Fifth Event.—For cars selling from \$2,000 to \$3.000—Chalmers-Detroit (Rankin) first, Palmer-Singer (Lescault) second, National (Welden) third; time 1.29 2-5.

Sixth Event. — Winners' class—Chalmers-Detroit (Rankin) first, Maxwell (Sichinger); time, 1.28.



GENERAL VIEW OF THE HILL

Indianapolis Speedway to Open August 19

The Indianapolis Motor Speedway in Indiana, the biggest mortordrome in the world, next to the Brooklands track in England, is scheduled to be opened on Thursday, August 19, when a three days' meet will be held. Finishing touches are being made to the track and on the opening day it will be in first class condition. The speedway, which is four miles from the heart of Indianapolis has grand stands capable of seating more than 25,000 persons, while the grounds will accommodate 200,000.

On each of the three days, commencing with the opening, there will be a long-distance race for machines, under the new racing rules of the American Automobile Association. The first day, Thursday, there will be short sprints and record trials for all types and sizes of cars, and a number of domestic and foreign machines are expected to participate in these events.

The first day's program will be completed with a race of 250 miles, for cars having a piston displacement of from 231 to 300 cubic inches. On the following day the semi-finals of the free-forall races will be run, as well as additional record trials. As on Thursday, the last race on the card on Friday will be a long one. It will be a 300-mile classic for the Prest-O-Lite trophy, possessing a coin value of \$1,000 in melted silver. This trophy, which will be raced for by cars having from 301 to 450 cubic inches displacement, will weigh close to 2,000 ounces, troy.

On Saturday the star races of the meet will be run. There will be the finals of the free-for-all handicap, as well as the finals for stock cars entered in the short-distance events. A liberal trophy will be presented to the driver who shall have covered the fastest mile during the meet.

The three days' racing carnival will

be concluded with what is claimed will be the greatest race ever held in the world. It will be a stock chassis event for cars ranging in piston displacement from 451 to 600 cubic inches, and a trophy that weighs 500 pounds of coin silver, standing over eight feet in height. The coin value alone of this trophy, which was donated by Wheeler &



WHEELER AND SCHEBLER CUP

Schebler Co., is \$5.000, while half as much more was spent on the design and manufacture of the same.

Preparations are being made to holda twenty-four hour championship event in September that will bring the fastest cars in the world in competition for the around-the-clock race, as well as for short events that will precede it. The event will probably be run about September 24 and 25.

Early in September there will be an



BANKED TURN ON MAIN TRACK

event for balloons, dirigibles and aeroplanes, and arrangements are being made to have the Wright brothers, or some of their pupils, take part in the events. Carl G. Fisher, who participated in the first national balloon contest to be held in this country, which started from the Speedway on June 5, will pilot his new dirigible at this meet, while many other sky craft of this type will also compete. An enormous crowd is expected to attend the opening of the new motor-drome. Motorists and enthusiasts from all over the United States will visit Indianapolis, and the management of the Speedway will make arrangements for their accommodation.

Sixty thousand visitors can be nicely accommodated in Indianapolis hotels, so that early reservations will not be necessary.

A. A. A. Contest Rules are Sent Out

Chairman Frank B. Hower, of the Contest Board of the A. A. A., sent out from Buffalo this week the new contest rules, approved by the Board of Directors on June 10. They are contained in a green-covered pamphlet of 39 pages and comprise, in addition to general rules governing contests, rules for reliability contests, track and racing rules and rules for hill climbs.

Of great value are the eight pages of reference tables. These tables give the French and American equivalent in measures, the per centage of slip in the

driving wheels of a motor car at different rates of speed, a table of gradients and a list of compound equivalents. The pamphlet also contains a reference table showing equivalent speed in miles and kilometers per hour for elapsed time over a measured mile or measured kilometer, from 24 seconds progressively by 1-5 second to 59 4-5 seconds; a table of piston displacements for bores and strokes, from 3 inches to 6 inches, and a table giving the revolutions per minute of an automobile's road wheels at different rates of speed.

Big Speedway Project for Atlanta

The motordrome movement has attacked the South, and two wealthy young men of Atlanta, Ga., have decided to build an automobile speedway in their city. The men are Asa Chandler, Jr., and E. M. Durant, and they have quietly purchased farm after farm, until about 300 hundred acres of valuable land under cultivation had been obtained.

Active work has commenced on the course, and there are now at work nearly 1,000 laborers and 100 teams. Great steam shovels, 100 big cars running on track, grubbers, carpenters and masons are busy preparing the ground for the big course.

The track or speedway is to be two miles in circumference, 100 feet in width on the home stretch and 60 feet on the banks and back stretch. On the banks the rise will be ten feet to the outer edge, or six degrees, and these banks will be shaped scientifically and in accordance with modern models upon which motorcycle tracks are formed. The surfacing on a red earth basis will be of Augusta "chirt" well mixed with a special oil.

Fifty cars may be started on its surface and compete safely. The removal of 300,000 cubic yards of dirt will be required to construct the speedway and level down all the hills to bring into view of the grand stand every inch of the track, which at some points will be fifteen feet above the surrounding land at the pole. No fences inside or outside the track will lend an air of safety.

Eleven farm houses wil be removed from the center of the plot to make room for the speedway village for the accommodation of the racing teams and managers. Twelve or more fireproof garages and a machine shop with power will be erected. Each garage will accommodate four cars. The living rooms of the drivers will be above the garages.

The tract of land is 2,200 by 6,100 feet, and is but seven miles from the center of the city. Grand stands to seat 30,000 persons will be erected.



ASA CHANDLER AND E. M. DURANT

The Atlanta Speedway is destined to be the scene of many notable contests this fall. It will be ready by October 15, and will be opened on Tuesday, November 9, with short-distance races and speed trials. A tentative program for the following four days includes a stock car race at 300 miles for cars of 451 to 600 cubic inches displacement, a light car race (301 to 450 cubic inches displacement) at 250 miles, a free-forall for the Atlanta trophy at 350 miles, and a sweepstakes with five classes at 100 miles for cars listing at \$1,000 and under; 150 miles for cars listing at \$1,001 to \$2,000; 200 miles for cars listing at \$2,001 to \$3,000; 250 miles for cars listing at \$3.001 to \$4.000, and 300 miles for cars listing at over \$4,000.

Program for Good Roads Convention

The program for the Good Roads Convention which is to be held in Cleveland, O., in September under the auspices of the American Automobile Association, the National Grange, the United States Office of Public Roads. National Association of Automobile Manufacturers, the Association of Licensed Automobile Manufacturers, the American Motor Car Manufacturers' Association, the American Road Makers' Association, and other national bodies interested in road improvements, has been prepared. The first day's session will begin at 2 P. M., with an address of welcome by Hon. Thomas L. Johnson, Mayor of Cleveland. will follow an address on "Good Roads in the State of Ohio," Hon. Harmon, Governor of Ohio, and the following:

James C. Wonders, State Highway Commissioner; "National Aid and Post Roads," Captain R. P. Hobson, M. C., Ala.; George S. Ladd, Good Roads lecturer, National Grange; "The National Grange and Good Roads," Ex-Governor Batchelder, Master of the National Grange; "State Aid," Hon. James H. MacDonald, State Highway

Commissioner of Connecticut; "Economies of Road Building," Samuel Hill, President Washington Good Roads Association.

The second day's session will begin at 10 A. M., and the program is as follows: "Road Situation in the United States as Compared with Foreign Countries," Logan Waller Page, Director, United States Office of Public Roads; "Macadam Roads," A. B. Fletcher, Secretary Massachusetts Highway Commission (or some speaker to be selected by the Massachusetts Highway "Bituminous Commissioner); Materials." Provost Hubbard. Chemist. United States Office of Public Roads. General Discussion.

The afternoon session will be devoted to inspection by the delegates of improved roads in the vicinity of Cleveland, through the courtesy of the Automobile Club of Cleveland.

The third day will be given over to dust, traffic and road tests on macadam roads, and practical demonstrations of road building, conducted by Logan Walter Page, Director United States office of Public Roads.

New Yorkers Have Visions of Motordrome

If the plans of a number of automobile dealers and importers in New York materialize the metropolitan city will have a motordrome that will rival the Indianapolis track, which is expected to open next month. A movement is on foot to buy a large plot of property within the limits of the city and to build a huge race track for motor cars.

The promotors of the plan have m view Brighton Beach race track, over which several successful automobile meets have been run, but at this writing (Thursday) nothing definite has been announced. The Brighton Beach track was divided into building lots and the fence surrounding the track torn down preparatory to the selling of the place, but the sale has been postponed pending the settlement of the negotiations the automobile men are having with the owners.

It has also been stated on the highest authority that several twenty-four hour races are to be held over the Brighton Beach track this season, with the possibility that some meets made up of short distance events will be conducted on some of the Saturdays selected for the twenty-four hour contests.

Stevens-Duryea Line for 1910

Two epoch-marking movements stand to the credit of the Stevens-Duryea Co. -the adoption, in 1904, of the principle of a three-point suspension and the production a year later of a six-cylinder model. Since then the principles ivolved have been maintained, the six-cylinder car remaining a feature of the line, while in all Stevens-Duryeas the threepoint suspension has been a conspicuous feature. The original production of a radically different power plant design has withstood all the time-tried tests, covering a period of five years, and each succeeding year's announcement has found the motor crank-case, the multiple disc-clutch, and the sliding gear transmission embodied as a unit power plant on three points of suspension, the drive to the rear wheels being of the shaft type. Similarly, since 1905, the company has adhered to its belief that all motors of over 30 hp. should be of the six-cylinder type.

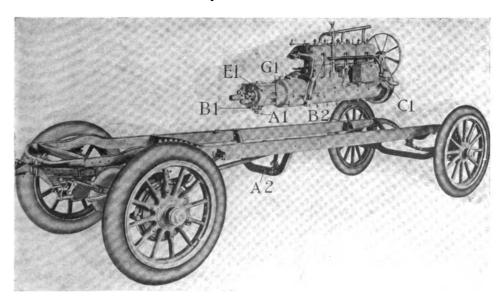
The Stevens-Duryea product for 1910 retains the distinctive features synon-

omous with the name from 1904, and comprises a line of four and six-cylinder cars from 24 to 40 hp. It consists of a six-cylinder car—the Model "Y"—and two four-cylinder cars, the Model "X" and "XXX." The "Y" has a motor of 434 bore, 4½-inch stroke, a standard equipment and an extremely roomy seven-passenger body. Platform spring suspension at the rear, a chassis of 142-inch wheel base, with tires of 36 x 5 rear and 36 x 4 front.

The Model "X" four-cylinder, 24 hp., with motor 4¾ bore, 4½-inch stroke, is designed as a touring car, seating five. The Model "X" body has been refined and a slight change made in the guard over the rear wheels. The change in the chassis is the addition of a torsion-rod to the rear axle.

It also has the platform-spring type of rear suspension, chassis having a wheel base of 124 inches, 34 x 4-inch tires for front and rear wheels.

Enclosed bodies are also fitted to the Model "Y" and "X," and the chassis



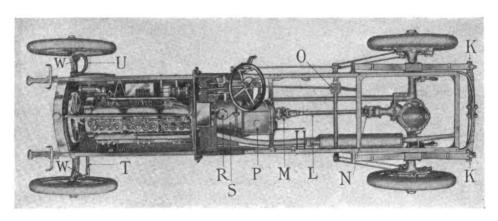
UNIT POWER PLANT SUSPENDED ABOVE CHASSIS FRAME

allows for the interchanging of the touring body for a limousine or landaulet.

The Model "XXX" is of 24 hp., having the same four-cylinder motor, 434 bore 4½ stroke, as the Model "X" touring car, is designed for a runabout with single bucket seat or baby tonneau bodies. The rear seats of the baby tonneau are easily detached, but not interchangeable with that of the runabout.

ing a perfect alignment of front and rear axles.

The propeller shaft "L" has two universal joints, "M," "N," the forward one, "M," having a square stationary connection to the transmission shaft and its rear end has a long square hole into which slides the forward end of the drive shaft. This construction allows drive shaft to rotate without end thrust on power plant or rear axle.



TOP VIEW OF MODEL "Y" CHASSIS

The wheelbase is 109 inches, with semi-elliptic springs 56 inches long at the rear, 36 inches long at the front, tires 36 x 4 inches rear and 36 x 3½ inches front for the runabout, 36 x 4 inches rear and front for the baby tonneau.

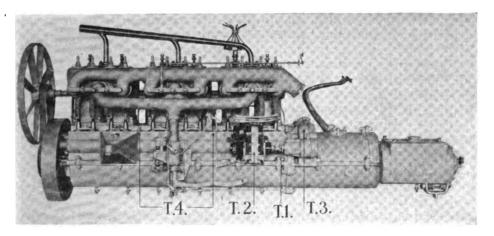
In the Model "Y" platform-spring suspension is used at the rear and has connecting shackles "K" designed to overcome the side roll on curves of the large and fast cars. Both front and rear spring clips are of special design, which allows springs to be made without the usual binding bolt in center. The discarding of the bolt greatly strengthens the entire spring, as the bolt hole was drilled in spring leaves at their weakest point. The forward ends of rear spring are attached by offset forgings directly to chassis frame maintain-

The rear universal joint, "N," is attached to the drive and pinion shaft by two square connections. A ball and socket compensator, "O," equalizes the braking strain of the contracting foot brakes at the rear wheels.

The transmission can be readily inspected or removed by unscrewing three thumb nuts and taking off the cover, "P," without the removal of the body or the gasolene tank.

The chassis frame is of simple design, having straight side members of chrome nickel steel, the only offset being in a vertical plane over the rear axle.

All spring shackles and connections are drop-forged, with ample provision made for oiling. The rear support for the platform spring is also drop-forged, and the attachment of this support to outer rear ends of chassis greatly



CARBURETTER AND MAGNETO SIDE OF MODEL "Y" ENGINE

strengthen the entire frome and overcome the necessity of heavily re-inforcing the chassis at the corners.

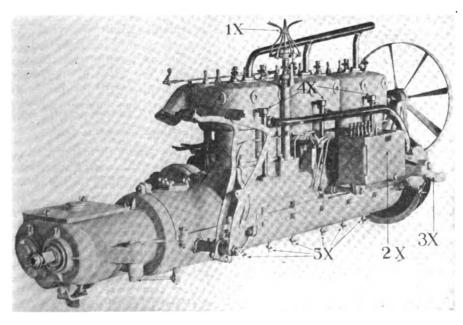
The four cross frames are pressed from chrome nickel steel, and are riveted to the side member under hydraulic pressure.

Forging "A1" is attached to the cross

frame at point, "A2," horizontal bolt, "B1," conects the motor case with "A1" and gives the (unit) power plant a flexible support.

Forward points, "C1," of which there are two, are attached to offset supports, "B2," by bolts.

The (unit) power plant on its two



TIMER, OILER AND PUMP SIDE OF MODEL "Y" ENGINE

stationary and one rocking support is not affected in any way by the distortion of the chassis frame caused by uneven roads or driving conditions.

The forward bearing of engine and bearing at rear in the transmission are always in perfect alignment, due to the three-point support, which allows the entire motor to roll without any strain on the case.

Transmission on case, "EI," is constructed without the usual horizontal division at "GI." This design not only strengthens the entire case, but prevents the excessive loss of oil or grease.

Six contact time, No. "1X," is operated from lay shaft by bevel gear, as is also oiler, No. "2X," and centrifugal pump, No. "3X."

Breather pipes, No. "4X" (three in number), allows for quickly filling crank base, each supplying oil to the respective cylinders beside which they are located.

The mechanical oiler, No. "2X," forces oil direct to the crank shaft bearings under pressure. The supplying of new, fresh oil to the main bearings has been found to be the most economical in regard to quantity used, as well as preventing excessive wear on bearings of motor.

Oil from the main bearings supplies lower half of crank for splash system, which is used to lubricate all pistons, connecting rod bearings and rotating parts directly below clinders.

Petcocks, No. "5X" (6 in number), have stand pipes extending above lowest point in base to a pre-determined height, and on opening, drain any excess of oil used in the splash system.

The fan is attached to motor base by forged arm and rotates on ball bearings; the tension on endless belt is at all times equal, spring pressure on supporting arm automatically adjusting belt.

The six-cylinder crank-shaft, forged from "special" nickel steel, has all bearings accurately ground, and extreme care is exercised to perfectly balance each shaft. The shaft is supported by four ample size bearings from upper half of crank shaft, which permits the removal of the lower half of case without disturbing any of the bearing adjustments.

A time-saving feature, the result of careful attention to details, is the removal of pistons without taking off the cylinders. Simply remove lower half of crank case, take off cap on connecting rod, and pull out piston with connecting rod. The taking out of piston without the breaking of water connections, disturbing adjustments, or the removal of cylinders, adds another distinctive feature.

The complete carburetter and manifold can be taken off without removing the exhaust pipe.

The magneto is directly connected to gear in clutch case by small universal coupling, "T1," which relieves all strain on armature shaft. The position of the magneto, well to the rear of the motor, prevents the water or mud that is drawn through openings in radiator from short circuiting the magneto. The releasing of one binding screw allows holding straps, "T2," to be separated and magneto removed from base.

In replacing, all that is necessary to insure that shaft is in alignment, is to insert small locating pins in base before tightening holding strap.

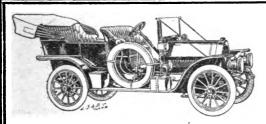
Valves, tappets and carburetter location have been given careful attention, so as to make each readily adjustable without the removal of other parts of the motor.

The cam shaft is operated by gear enclosed in clutch case, "T3," the face of the gear being in fiber insures its quiet running, and without lubrication.

Automobile Topics Tour

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New York City



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NEW YORK TO MOHONK LAKE

Just west of the Hudson River, nearly opposite Poughkeepsie, is Lake Mohonk, a beautiful sheet of water nestling in the hills. New Yorkers will find it well worth a visit and the accompanying route details give all necessary data.

Starting from Columbus Circue go up Broadway, ignoring all cross streets, to 230th Street. Turn left on 230th Street and then straight to end of same at Riverdale Avenue, where turn right through Riverdale. Pick up trolleys shortly after passing Mt. St. Vincent and follow same into

Yonkers (12.8 miles).

Cross Main Street and go onto Warburton Avenue. Straight ahead, curving left after leaving viaduct at Hastings-on-Hudson until Dobbs Ferry, where keep right. At cross roads shortly beyond, descend, take left road and then straight through Irvington to main street of Tarrytown (23.1 miles).

Straight ahead, passing Sleepy Hollow Cemetery to

Ossining (29.3 miles).

Bear left at fork with monument in center, then down grade and immediately up grade. Keep left at fork. At fork at school, turn left and cross two iron bridges. Straight ahead through Marmon, Croton-on-Hudson and pick up trolley cars shortly after Montrose. Follow cars to four-corners at country hotel, where turn right with car tracks and immediately beyond again turn right and follow trolleys to end of road. Turn left with car tracks on Washington Street, Peekskill, and then turn right on South Street, curving left into South Division Street.

Peekskill (40.5 miles).

Straight ahead across Main Street to fork, where take left road into Highland Avenue. Curve left immediately after crossing bridge at bottom of steep grade. At next bridge turn left. Straight through Annsville, bearing right just beyond. Keep

right on main road at first fork, but at second fork take right road. At next fork, a mile and a half beyond, take left through woods to four-corners, where take right road. At another fork just beyond keep to the main road across small iron bridge. Keep to left, following sharp left and right curves and left horseshoe curve. Straight to fork at lower end of

Cold Spring (51.3 miles).

Take right road leaving Cold Spring. and then straight ahead, passing cemetery and over stone culvert to end of road at watering trough, where turn right. At next fork turn left. Keep left at three-corners and at fork. Along winding road around Fishkill Mountains to

Fishkill Village (61.3 miles).

Turn right on Church Street, and at fork keep left. Straight through four-corners, curving left ½ mile beyond, and at end of road turn sharp right into the village of Wappingers Falls (66.5 miles).

Straight ahead over bridge, and at end of road turn right fork. Keep left with car tracks and follow same into South Avenue to end of Market Street, at Main Street,

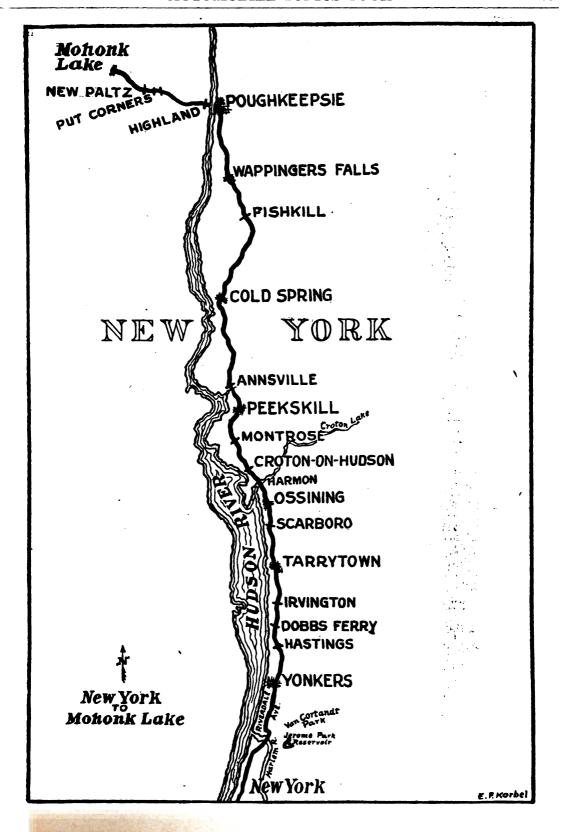
Poughkeepsie (74.2 miles).

Go down Main Street to ferry, crossing Hudson River to Highland Landing. Follow trolleys up long steep hill to Highland Village and then straight ahead on New Paltz Turnpike through Centerville and Put's Corner to

New Paltz (82.2 miles).

Keep to left for a short distance and then in a northwest direction for about three and a half miles to

Lake Mohonk (85.7 miles).



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Orphans' Day Had a General Observance

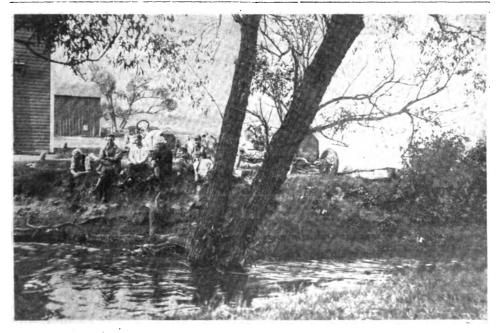
Some statistics regarding the observance of Orphans' Day in the month of June have been compiled by Secretary Elliott, of the American Automobile Association. His conclusion is that Orphans' Week has been celebrated to a larger extent this season than ever before. From the estimate received at the A. A. A. officers it is clear that over 40,000 orphans enjoyed the hospitality of their motoring friends from fully fifty clubs. In all cases it was not possible to observe the day during the first week of June, and owing to weather

conditions and other local arrangements several of the Orphans' Day outings did not occur until toward the end of the month. New York, with its entertainment of over 2,400 youngsters, heads the list, but other notable cases which reveal the enthusiasm and hard work on the part of automobile owners, were Buffalo, where 1,200 orphans were cared for; Troy, with 1,000; Baltimore, with an equal number; Brooklya, through the Long Island Automobile Club, nearly 1,000; Denver, with 800; Pittsburg, 700, and Hartford, 600.

Improving Road to Atlantic City

Automobile tourists making the trip from New York to Atlantic City will be pleased to hear, as reported last week by H. A. Bonnell, secretary-treasurer of the Associated Automobile Clubs of New Jersey, that the only bad stretch of road on this route is between New Gretna and Port Republic.

This section of road is undergoing repairs and within a short time it will be in as fine conditon as other improved roads in New Jersey. The free-holders of Atlantic City have taken steps not only to widen this road, but to fill it in, so when the tide is at its highest, water will not cover the road.



THE GOOD OLD SUMMER TIME—AN INCIDENT CONNECTED WITH THE COBE RACE

Changes in Massachusetts Law

The new Massachusetts State motor vehicle law became effective July 1, and motorists are in some cases experiencing trouble in conforming to its provisions. A number of changes from the present law are provided for in the new one, the important ones being given below:

Cars of more than ten horsepower must have two brakes. Ever motor vehicle must be equipped with a muffler attached to the exhaust pipe to prevent unnecessary noise, a brake which can be set, and some sort of device to prevent it being set in motion by unauthorized persons.

Lamps must be kept lighted when on the roads from one-half hour after sunset until one-half hour before sunrise. Each car must have two side lamps, displaying white lights, one rear lamp showing red light from behind and white light to illuminate rear registration number tag. Every precaution must be taken to avoid frightening horses, and engines must be stopped on signal of a person in charge of horses.

Every motor vehicle must be slowed down when approaching or passing a stopped street car, and if necessary brought to a full stop. When approaching a pedestrian on the traveled portion of any road, when the pedestrian is not on the sidewalk, or upon approaching an intersecting road or curve or corner, each car must be slowed down and kept to the right of the intersection of the

centres of both roads when turning to the right, and pass to the left of the intersection of the centers of both roads before turning to the left.

Drivers of motor vehicles must not operate them at any time at a rate of speed greater than is reasonable and proper. Outside of the thickly settled or business portions of a city of town twenty miles an hour is deemed reasonable. A rate of fifteen miles an hour is the limit of speed for driving through the streets of the thickly settled or business portions of cities and towns. At crossings or intersections of highways or on curves where a view of traffic is obstructed, the limit allowed is eight miles an hour.

One of the sections of the amended law abolished all ordinances, by-laws or regulations that have been in force in cities or towns or in parks and parkways—excepting only in the metropolitan parkways and the island of Nantucket—regulating the speed of cars. The former speed regulations for Commonwealth Avenue, Boston, and for the Boston parkways are also abolished. Local officials who desire special regulations must secure the approval of the State Highway Commission and advertise the changes in the newspapers. No regulation will be valid which excludes motor vehicles from any State highway or from any main highway leading from any city or town to another.

Wants Use of Fictitious Numbers Stopped

In a letter to Commissioner of Public Safety Charles S. Owen, the governors of the Rochester Automobile Club suggest the appointment of a vigilance committee of ten members of the club, to warn reckless motor car drivers and motorists who carry fictitious numbers on their machines. The governors de-

clare that there are fully 200 automobiles going about the highways in and about Rochester with wrong numbers displayed on them.

Representative Kemp, of Springfield, Mass., has been appointed a member of the State Highway Commission.

Grand Jury Hits at Joy Riding

"Joy-riding" was last week the subject of a presentment made by the Kings County (Brooklyn) Grand Jury. In this presentment, which was handed to Judge Dike in the County Court, the Grand Jury spoke in strong terms against the practice of using the city's motor vehicles for pleasure purposes, and made recommendations designed to put a stop to the practice. In the presentment the Grand Jury said:

The use of automobiles owned by the city for purposes other than public business has come to be a matter of public scandal, and while the June Grand Jury has not had time to investigate the entire subject, nor even specific cases, it feels warranted in calling the attention of all commissioners and heads of departments to Section 1293A of the Penal Code, which reads as follows:

"Sec. 1293a (Added 1909). Unauthorized use of vehicles.

"Any chauffeur of other person who without the consent of the owner shall take, or cause to be taken from a garage, stable or other building or place, an automobile or motor vehicle, and operate or drive or cause the same to be driven for his own profit, use or purpose, steals the same, and is guilty of larceny and shall be punished accordingly.

"Added by L. 1909, ch. 514. In effect September 1, 1909."

While this law does not become effective until September 1, 1909, the Grand Jury feels sure that all employes of the city who have the authority to use automobiles that are city property, will see to it that they are used only for the purposes they were purchased for, i. e., the facilitation of business connected with the municipality.

It is common rumer that city automobiles may be seen Sundays and holidays and at all hours of the night filled with both males and females, and palpably not engaged in public work.

The Grand Jury suggests that all conveyances, whether propelled by power or by horses, be plainly marked in printed letters not less than four inches in length, showing to what department they are attached.

These vehicles are the property of the city and may not be used for pleasure by any commissioner or employe.

We also call the attention of the various commissioners to the conviction of one William F. Foley, chauffeur, employed by Judson S. Todd, who was recently convicted of the theft of half a gallon of gasolene, and was sentenced to the city prison for thirty days.

Not only are the vehicles the property of the city, but so, too, is the gasolene used, and any city employe is liable to arrest if he unlawfully uses city property.

Route Book to Lake Champlain Free

The Automobile Club of America has issued a complete and interesting pamphlet giving specific route directions for a tour into the Adirondacks and Lake Champlain. This has been prepared for the use of automobilists desiring to visit the mountain district for the purpose of seeing the ter-centenary celebration on Lake Champlain. No organized run will be made; but any automobilists may procure a copy of this touring pamphlet free by application at the Bureau of Tours, Automobile Club of America Building. West 54th Street, New York City.

The tour will take in beautiful and picturesque roads from Albany to Saratoga, past Lake George, Schroon Lake, the mountains of Elizabethtown to Plattsburg, and returning will include the Green Mountains to Rutland, Manchester, Remington and Troy. No more delightful trip could be outlined than this one, nor can more points of historic interest be visited n a three-day trip than the Adirondack-Champlain tour.

The Buffalo Automobile Club has more than 1,700 members.

Text of New York's Taxicab Ordinance

The text of the new taxicab ordinance, which was approved by Mayor McClellan, of New York, last week, and which became effective "sixty days after the appointment of the inspectors" provided for, is as follows:

An Ordinance to amend sections 315 and 316 and 379 of chapter 7. title 2, Article 3 of the Code of Ordinances of The City of New York.

Be it Ordained by the Board of Alder men of The City of New York as follows

Section 315. Every person driving a licensed hack, or express (other than the person named in the license therefor) shall be licensed as such driver, and every application for such license shall be indorsed, in writing, by two reputable residents of The City of New York testifying to the competence of the applicant. No owner of a licensed hack or express shall employ an unlicensed driver under a penalty of ten dollars for each and every offense.

316a. Any meter, instrument or device by which the charge for hire of a licensed hack is mechanically calculated either for distance traveled or for waiting time or both, and upon which such charge shall be indicated by means of figures, shall be deemed a taximeter. Every vehicle upon which such taximeter is affixed shall be deemed a taxicab.

316b. Each vehicle upon which a taximeter is affixed shall be licensed and the owner thereof shall pay annually such fees as are hereinafter provided:

Eash special taxicab, \$10. Each public taxicab, \$10.

Each driver of a taxicab shall pay an annual license fee of two dollars. The owner or driver of any hack upon which a taximeter is affixed and who has duly procured a license to use or drive such vehicle according to the provisions of any ordinance hereinbefore enacted, may continue to use or drive said vehicle under such license until its expiration.

316c. There shall be under the direction of the Chief of the Bureau of Licenses such inspectors as may be found necessary to carry on the work hereinafter described, who shall be appointed by the Mayor and who shall be paid such compensation as shall be fixed by law.

316d. It shall be the duty of such inspectors to test, inspect and ascertain the accuracy of each and every taximeter affixed to or about to be affixed to any vehicle offered for hire and to measure, test and examine every wheel, tire, gear, shaft and every part of the mechanism of such vehicle which may affect or control the operation of such taximeter. An inspector shall mark and number each teximeter and vehicle which is approved by him at least once every six months and as much oftener as the Chief of the Bureau of Licenses may deem necessary, with some suitable device, which device shall be recorded in the office of the Bureau of Licenses. Any person may provide and keep on his premises a suitable and proper apparatus to be approved and marked by the chief inspector, for testing and proving the accuracy of taximeters and vehicles furnished for use by him and by which apparatus all taximeters and vehicles may be tested and proved. It shall be the duty of any person using or permitting to be used any taxicab immediately after any inspection or test, to effectually seal up the case containing the working parts of the taximeter and the case or cover of the gear which operates the distance recording apparatus, if it is not inclosed in the main part of the taximeter.

316e. Any person who shall use or permit to be used or who shall drive for hire any taxicab the seal of the case or cover of the taximeter or gear of which is not intact, shall upon conviction thereof by any city magistrate be fined for such offense a sum not exceeding ten dollars, and in default of paying any fine which is imposed, may be committed to the city prison not exceeding ten days, each day of imprisonment to be taken as a liquidation of one dollar of the fine.

316f. No license shall be issued to a taxicab unless an inspector shall certify to the chief or deputy chief of the Bureau of Licenses that the taximeter of and such vehicle have been duly inspected and approved.

316g. Such inspector shall keep a register of the name of each person owning or using a vehicle upon which a taximeter is affixed, together with a serial number, size and make of such taximeter, the description, make and necessary dimen

sions of such vehicle, with the date and complete record of such inspection, and such record shall be open to the inspection of the public at all reasonable times

Each inspector shall issue a certificate of inspection of taxicabs and shall keep a record of such certificates given on a corresponding stub. The certificates and corresponding stubs shall be numbered consecutively. All registers and books shall be public records and extracts may be certified by the Chief Inspector for use as evidence.

4 316h. Five thousand two hundred and eighty (5,280) feet shall be deemed one mile.

316i. No owner or driver of any taxicab which seeks patrons on the streets, avenues or highways of The City of New York, or occupies space thereon by reason of a permit or license from The City of New York, shall exact any fare from a passenger greater than set forth in the official schedule of rates hereinafter provided

316j. The legal maximum rate provided in this ordinance and any schedule of rates promulgated by the owner of any such vehicle charging less than the legal maximum rate, shall be displayed in a conspicuous place on the inside of such vehicle.

Legal Maximum Rates

For each taxicab intended to seat two persons inside and driven by motive power, for one-half mile or any part thereof, 30 cents.

For each additional quarter-mile or any part thereof, 10 cents.

For waiting time at the rate of \$1 per hour.

For each taxicab intended to seat four persons inside and driven by motive power, for one-half mile or any part thereof, 40 cents.

For each additional quarter-mile or part thereof, 10 cents.

For waiting time at the rate of \$1.50 per hour.

For one piece of baggage, 20 cents.

No charge shall be made for handbags, dress suit cases or child under five years of age by any taxicab.

316k. All rates of fare shall depend on the number of persons which each vehicle is intended to seat inside and not on the number of passengers actually carried, and no owner or driver of any taxicab shall use or permit to be used on such vehicle any taximeter which shall calculate or indicate a rate of fare which shall depend on the number of persons actually carried, under a penalty of twenty-five dollars \$25) for each offense.

316l. After such taximenter and vehicle have been duly marked, numbered and approved, any person who shall substitute and affix any other taximeter on such vehicle than that numbered, marked and approved for such vehicle, unless he immediately notifies in writing the Bureau of Licenses, giving the serial number, size, gear and make of such substituted taximeter and shall within fortyeight (48) hours after such substitution cause such taximeter to be marked, num bered and approved for said vehicle by an inspector, and any person who shall use or permit to be used or drive any vehicle upon which such taximeter has been substituted and affixed, unless as aforesaid, and any person who shall tamper with. manipulate or operate any taximeter which has been duly marked, numbered and approved, or any part of the mechanism of such vehicle which controls or affects such taximeter so that the taximeter is defective or incorrect to the prejudice of any passenger, or who shall use or permit to be used or drive any vehicle the taximeter of or such parts of the mechanism of which have been so tampered with, manipulated or operated, or any person who shall used or permit to be used or drive any taxicab for hire, not inspected, examined, marked and numbered as hereinbefore provided for, shall, upon conviction thereof by any magistrate, either upon confession of the party or competent testimony, be fined not more than fifty dollars (\$50) for each and every offense, and in default of payment of such fine may be committed to prison by such magistrate until the same shall be paid, but such imprisonment shall not exceed ten days.

316m. No person shall use or permit to be used or drive any taxicab for hire the taximeter of which shall be adjusted or installed in such manner or which shall be in such condition as to be over five per cent. (5%) defective and incorrect to the prejudice of any passenger, under a penalty of fifty dollars (\$50) for each and every offense.

316n. No taximeter affixed to a taxicab propelled by steam, electricity, gasolene, compressed air or other motive power, shall be operated from any wheel to which power is applied, under a penalty of twenty-five dollars (\$25) for each and every offense.

3160. Each figure used to indicate the fare on a taximeter shall be of such size as to be legible from the rear seat of such vehicle, and each taximeter shall be placed in a position approved by an Inspector so that its face can be easily seen by a passenger from the inside of said vehicle and after sundown such face shall be illuminated by a suitable light.

316p. All persons shall exhibit on demand, at all reasonable times, any taximeter or vehicle to any Inspector for the purpose of inspection. Any person offending against this section on conviction thereof by any City Magistrate, may be fined for each such offense a sum not to exceed ten dollars (\$10), and in default of paying any fine which is imposed, may be committed to the City Prison not exceeding ten days, each day of imprisonment to be taken as a liquidation of one dollar of the fine.

316q. If any passenger shall request an inspection of any taxicab, giving in writing a full statement of any trip made by him, upon investigation of said request the Chief or the Deputy Chief or the Chief Inspector of the Bureau of Licenses may order the owner of the vehicle complained against to withdraw the same from service until inspected and tested, and the same shall be forthwith inspected and tested; if the same on being so tested shall be found 5 per cent. defective or incorrect to the prejudice of

any passenger, the Inspector shall order the owner to remove said incorrect taximeter. Any person who refuses to comply with or who disobeys said order or orders shall, upon conviction thereof by any City Magistrate, be fined for each such offense a sum not to exceed ten dollars (\$10), and in default of paying any fine which is imposed may be committed to the City Prison not exceeding ten (10) days, each day of imprisonment to be taken as a liquidation of one dollar of the fine.

Sec. 379. Except as hereinbefore other? wise provided, no person shall violate any of the regulations of this ordinance under a penalty (of not less than two dollar or more than) of ten dollars for each offense. No such violation shall be continued under a penalty of (one) ten dollars for each day so continued. Any person engaging in or carrying on any business herein regulated without a license therefor, or any person violating any of the regulations of this ordinance (shall be deemed guilty of a misde-meanor, and) upon conviction thereof by any Magistrate, either upon confession of the party or competent testimony, may be fined not more than (two) and ten dollars for each offense, and in default of payment of such fine may be committed to prison by such Magistrate until the same be paid; but such imprisonment shall not exceed ten days.

Sec. 2. The provisions of this ordinance shall take effect sixty (60) days after the appointment of the Inspectors, as provided in Article C.

Sec. 3. All ordinances or parts of ordinances inconsistent with this ordinance are hereby repealed.

How to Crank a Car

Though the operation of cranking a motor seems to be a small matter concerning which no particular instruction is required, it is nevertheless true that there is a right and a wrong way of cranking. The novice will invariably grasp hold of the starting handle in the manner in which he would hold a club, so that his fingers envelope the handle in one direction and his thumb in the other. This method should be avoided by every one who does not desire to suf-

fer the consequences of a back-kick. The thumb should not be used, but should be folded up against the fingers. Suppose there is a back-kick, it will do no harm, but simply open the fingers. This is particularly true when the left hand is used in starting, because then the operator's arm is extended upon the upward pull of the handle and the back-fire will open the handl and throw it out of the field of rotation of the crank.

PREVENTIVES AND REMEDIES

Coasting is an art, and a very useful one to learn and habitually practice on all possible occasions. It is especially economical on undulating roads, and it is really astonishing how the fuel allowance can be reduced on the same stretch of mileage by a judicious use of the law of gravity. Competitions in which the amount of gasolene consumed is taken into account in the scoring of points bring out the value of coasting very clearly, but in everyday driving its advantages are apparently but rarely considered. Even in traffic driving coasting on a small scale, instead of scrambling up to each obstacle and then jamming on the brakes, shows a marked effect at the end of a few months, not only on the fuel bills, but also on the tires.

A too free use of the brakes is one of the principal causes of excessive wear of tires. With the exception of those occasions when it is imperative to check the car as quickly as possible, the use of the brake should be dispensed with. Braking is greatly overdone by most drivers of cars, and the habitual use of powerful foot and hand brakes cannot but prove harmful to the tires, owing to the sliding of the wheels which ensues before the momentum of the car is overcome.

If rubber hose connections are used anywhere in the water-circulating system they had best be renewed at the beginning of each season, as they deteriorate rapidly, and sometimes the inside layer of fabric separates from the rest and impedes the circulation, without the defect being apparent from the outside. No kinks should be allowed in such connections, and the clamp fasteners should be properly secured.

There are many ways of testing the viscosity of oil, depending principally on the degree of accuracy with which it is considered necessary to carry it out. Perhaps the simplest way of all it to get a piece of flat, smooth glass, and to try how long it takes for drops to trickle down when it is inclined at a suitable angle. Drops of equal size, and at even temperature, are requisite in order to get a fair comparison. By warming the glass up to a given degree

of heat, the amount of viscosity lost by the rise in temperature may be compared between two or more kinds of oils. Another simple way to test viscosity is to take a funnel and close up the lower end until there is a hole only one millimeter in diameter, then, with an oil kept at boiling point, there should not be a variation in speed with which it drips out of more that 10 per cent., as compared with the time taken by an oil of which the viscosity is known to be suitable.

Perhaps one of the most trying experiences encountered in a day's motoring is that attached to driving through a cloud of dust raised by a car passing at speed. One never knows what is behind, or in the dense pall, and he is indeed a wise man who slows up, and even stops his car, well in on the right-hand side of the road until the dust has subsided. This is a matter that should be borne in mind when passing a crowd of cyclists or others on the road. Many of them, probably heedless of the danger, might spread themselves over the highway—as is their wont -to be immediately confronted with the problem of throwing themselves and their machines into the ditch or striking an oncoming vehicle which has suddenly made its appearance.

The optical part of motor lamps, whether of the acetylene or oil variety, should, of course, be kept in a high state of cleanliness. Everybody will admit that a perfectly polished reflector or a thoroughly cleaned lens or mirror gives a higher luminous efficiency than is given by a tarnished or improperly kept device. Silvered reflectors should be cleaned lightly with crocus powder and then dried with a chamois skin. Reflectors of brass are cleaned either with a liquid or paste polish, of which a great many are upon the market; no acids of any kind should be used, and the polish should not contain any coarse grains, as these will scratch the reflectors.

Bolts holding sprocket rims to the driving wheel of chain-driven cars are inclined to loosen in the spokes, and it is well to occasionally tighten the nuts which hold them in place.

C L U B S

The Automobile Club of Washington, D. C., has indorsed the suggestion of the Automobile Club of Richmond and the chamber of commerce of that city that the proposed Lincoln Monument Road to Gettysburg be extended as far south as Rich. mond, Va. The matter has been discussed by the Washington club and it will lend its efforts to secure the extension. It has been pointed out that the construction of such a highway from Gettysburg to Richmond, via Washington, would do much toward the development of the country between the two capitals. It is the earnest desire of the two Southern organizations mentioned that action be taken to open a section of the country which has heretofore been closed to motorists, owing to the almost impassable condition of the roads.

It is proposed to organize a motor volunteer corps in Norway, and negotiations with this object in view have been begun between the General Staff and the Norwegian A. C.

The legal committee of the New Jersey Automobile and Motor Club are conducting an investigation into the actions of Justice of the Peace Abram D. Naar, of Trenton, who has been summoning motorists for alleged speeding on the roads near Trenton, and all members of the club and other automobilists as well who have received such notices and have been fined are requested to communicate with Secretary A. B. LeMassena, stating the particulars.

The Shamokin Motor Club, of Shamokin, Pa, has elected the following officers: C. Q. McWilliams, president: Thomas Mullen, first vice-president: George Robertson, second vice-president; George W. John, secretary; Frank P. Llewellyn, treasurer. Rules and by-laws were adopted, and arrangements made to secure quarters for the club, which is composed of twenty-five local automobile owners.

At a meeting of the Board of Governors of the Automobile Club of Washington, D. C., last week, the House Committee was directed to arrange for a "crab feast" at

an early date, to which the ladies are to be invited. The report of the secretary and treasurer showed the club to be in a flourishing condition. The membership now numbers nearly 200, the largest in the history of the organization. The following were elected to membership: William B. McBurney, Charles E. Langley, Cuno H. Rudolph, A. B. Dulin and H. W. Seymour.

Minneapolis, Minn., chauffeurs have organized the Minneapolis Motor Drivers' Club, with the following officers: Fred Orst, president; J. Madden, vice-president; Oscar Hall, secretary, and George Gogue, treasurer.

The Milwaukee Automobile Club's annual orphans' day outing will be held on August 31 or September 1.

The Sioux City (Ia.) Automobile Club is arranging with farmers along the route of the Glidden tour in that section to have the roads given a general overhauling.

The Springfield (Mo.) Automobile Club has been re-organized, and the following officers elected: W. H. Horine, president; J. E. Atkinson, secretary; Holland Keet, vice-president, and Robert L. Pate, treasurer.

The Chicago Lake (Minn.) Automobile Club has been organized, the following officers being elected: C. A. Victor, president; V. L. Johnson, vice-president: F. A. Dahl, secretary and treasurer.

The organization of the Detroit Motor Club is progressing immensely, and it is expected that the club will be completely organized before long. It is the purpose of the organizers to secure a membership of 2,000 at least. Among its objects are to aid in the improvement of the streets of the city of Detroit, and of the roads within a radius of 100 m'les of the city; it w'll undoubtedly take up the placing of signs at turns and other dangerous places within the same territory.

An automobile track race meet, to be held in Syracuse during State Fair week, next September, is being planned by the Syracuse Automobile Dealers' Association

AUTOMOBILE SPORTS

Saturday afternoon, July 31, has been selected as the date for the members of the New Jersey Automobile and Motor Club to hold a club run to Olmpic Park. On arrival there a shore dinner, prepared by Chef Winters, will be taken care of by the members of the club. During the summer months the club committee plans to hold a number of these sociability runs to various points and have announced that the next one following that to Olympic Park will be to Bellewood Park, some Sunday in August. These Sunday runs, which are held in a quiet manner, without any idea of competition, have proved popular in the past, and have done much to promote good fellowship among the club members and their families. The members leave their homes at any time in the morning they please, timing their arrival at their destination at the noon hour.

A sealed bonnet endurance contest is to be conducted on July 17 by the North Jersey Automobile Club, of Paterson.

Sixteen entries have been received up to date for the road race to be held at Los Angeles, Cal., July 10. The race, which is to be run over a 200-mile course, promises to be one of the most strenuous events of its kind held in that sect on of the country.

The Chicago Motor Club has about completed arrangements for its annual hill-climbing contest at Algonquin, Ill. Following the usual custom, Phillips Hill is to be used for the flying start events, while Perry Hill will be the scene of the standing starts. Both grades are being put in first-class condition.

Rules have been issued for the international trial of industrial motor vehicles, which the Austrian Automobile Club will hold from the 3d to the 17th of October next. Categories will be provided for. I. doctors' cars and motor cabs; 2, 'buses scating from eight to fourteen persons; 3 ditto for over fourteen passengers; 4, delivery vehicles up to 1 ton carrying capacity; 5, ditto from 1½ to 2 tons; 6, ditto from 2½ to 3½ tons; 7, d'tto over 4 tons; and 8, motor road trains. The vehicles will have to cover a distance of about

2,000 kilometers in ten or twelve daily stages, the route being from Vienna to Pilsen, Reichenberg, Prague and back to Vienna. The points to be taken into account are regularity of running, maintenance of fixed average speed, the freedom from breakdown, the relation of useful load to tare weight and fuel consumption.

The Columbus (O.) Automobile Club conducted a series of automobile races on Friday, July 2, and several prominent racing drivers, including Louis Chevrolet, winner of the recent Cobe race, participated. The ten-mile event was won by Lewis Strang in a Buick, when he negotiated the distance in 9.52 2-5. Burman in a Duick took the five-mile race in 5.55. Lorimer with a Chalmers-Detroit "Blue Bird," won the 25-mile event in 26.06 2-5. The one-hour record race was taken by Burman, driving a Buick. He covered 55¾ miles.

Preparations are being made by the Minnesota State Automobile Association for the holding of a three-days' endurance contest August 26, 27 and 28. The event will be open only to owners of cars. and will be conducted under the rules of the Glidden tour. Three routes are being considered, one from Minneapolis to Fargo and return; another through the southern part of Minnesota, including some fifteen towns and cities in which there are thriving clubs, and the third to Duluth and return. A \$500 silver trophy has been offered by a St. Paul newspaper, the conditions making the run an annual event, the winner each time to have possession of the cup for one year.

Abelarde E. Cooper, of Salinas, Cal., made a record when he recently covered, in an automobile, the 120 miles to Tassajara Springs, Cal., and return to Salinas in less than thirteen hours. The route taken was over rough and dangerous mountain roads and was considered impossible until Cooper made the journey with four passengers in his car.

The Royal Automobile Club of Great Britain is to conduct a series of headlighting tests on the night of Monday, July 10, at the Crystal Palace, London.

HIGHWAYS

D. M. Perry, president of the Warren County Automobile Club of New Jersey, suggests an important change in the route from Morristown to Hackettstown and Easton, the main route to Schooley's Mountain, and also on the way to the Delaware Water Gap. The section of the road between Port Colden, one mile east of Washington, N. J., and its junction with the Hackettstown and German Valley road, about one mile beyond Hackettstown is undergoing extensive repairs and is closed to automobiles, and may not be opened again until late in October. Mr. Perry suggests that tourists going west from German Valley to Washington or Easton should go to Hackettstown. Turn to the left and run up Main Street, following this street out of town about one mile, and pass under the D., L. and W. Railroad tracks straight to Rockport, crossing the canal to the right, and then straight to Port Murray; through Port Murray, crossing the canal at that point, and over the D., L. and W. tracks one mile to Ander son's schoolhouse cross-roads. Here turn to the right, and passing the Anderson Hotel, take the left-hand road over the hill for about one mile. Then take the first right-hand road running half a mile to its junction with the main turnpike. Turn to the left and go about 500 feet and across the D., L. and W. tracks to the right. Turn sharply to the left and run straight to Washington, one mile away.

New Bedford, Conn., is this year making a more extended use of dust preventatives and road preservatives than ever before.

In England and France the application of hot tarvia to the roadway is considered much preferable to the cold treatment which is principally employed in this country. The foreign countries have special machines for spreading the tar, and this greatly decreases the cost. The Massachusetts highway commission has this year imported two machines which are built to tow behind a road roller. A preliminary trial has already been made on the State highway at West Lynn. An extremely even and satisfactory coat of tarvia was applied, meeting in every way the expectations of the commissioners. Another machine, of a slightly different

type, has been imported by the Barrett Manufacturing Company. The machine is a steam automobile carrying a large tarvia tank and the spraying apparatus. It is made under the Aitken patent, and 30 of the machines of this type were in use in England last year. Preliminary trials of the machine in the vicinity of Boston show the capabilities of this method of applying tarvia.

An eminent road authority has said that the repairs on a macadam road begin with the first day that it is open to travel. The cost of these annual repairs is stated in a widely differing manner by different highway authorities, so that a practical comparison is difficult. Some authorities call the cost of upkeep only the small amount necessary for looking over the road and making minor repairs. This, however, may be considered a fallacious way of looking at the problem, as every road is subject to constant deterioration and will need rebuilding after a lapse of years, depending upon the uses to which the road The State of Massachusetts has, up to the present time, allowed \$100 per mile for repair expenses on State roads. In this connection, the experience of English engineers is interesting. Mr. Harold Parker, chairman of the Massachusetts Highway Commission, makes the following statement in regard to European practice: "In England and France, where scientific methods in the care of roads have been employed for generations, and where thousands of miles of government roads have been built, it costs on an average of more than \$300 a mile to maintain them, notwithstanding the lesser price of labor and longer days."

The Walla Walla (Wash.) Automobile Association will soon begin the distribution and placing of 1,000 road signs, which have been given by the Commercial Club, for the guidance of motorists in that vicinity.

A contract for top dressing all of the roads of Union County, N. J., with liquid asphalt has been let by the Board of Freeholders of that county.

If efforts of the Racine (Wis.) Motor Club bear fruit, the streets of that city will be thoroughly overhauled.

AERONAUTICS

The Aero Club of America, which has made one entry in the international balloon race to be held October 3 at Zurich, received last week a very detailed circular of information from the Swiss Aero Club, telling of the preparations made for the contestants. The gas works, which will supply all the gas needed to inflate the balloons of the twenty contestants expected to start, are situated about three and a half miles from the town. Zurich Corporation will furnish all the gas without charge. James Gordon Bennett, the donor of the cup, has renewed his offer of \$2,500 for the winner of the race, and additional prizes have been offered by the The Aero Club of Swiss Aero Club. America will name its representative for the race by August I, and about the same time the club's contestant for the international aviation race at Rheims, France, late in August, will also be named. The latter is likely to be Glenn H. Curtiss or A. M. Herring.

Great caution is being exercised by the Aero Club of America this season in sanctioning free balloon races, though its contest committee is deluged with applications from all sections. In competent hands, the committee contends, this sport is as safe as automobiling, but is dangerous in the extreme with untried beginners, as was recently shown in Russia, when a new hand at the game pulled the rip cord instead of the valve line, thereby dashing a party of four to sudden death. In other words, the committee refuses to sanction any contest that appears to be a hippodrome or one that involves any element of avoidable danger.

An interesting 20-mile point-to-point balloon race was conducted by Pittsfield, Mass., areonauts on Monday, July 5. The balloon Pittsfield, piloted by William Van Sleet, defeated the North Adams No. 1, with N. H. Arnold as pilot, by about five miles, the former landing close to the town line of Chester, while the latter came down in Southampton. The two airships left Pittsfield at 11.30 A. M., with a strong northwest breeze blowing. At noon both were over the mountains, and at 12.20 P. M. the Pittsfield came down in the ad-

jeining town of Huntington, but close to the Chester line. The North Adams No. 1 landed ten minutes later in Southampton under circumstances which were rather thrilling, as the drag ropes and anchor caught in trees and swung the balloon down so that the netting also caught, nearly throwing the three men out of the basket. Those in the North Adams besides the pilot were Carl A. Grout and E. L. Snyder, of Pittsfield, while with Mr. Van Sleét in the Pittsfield were Miss Mildred Hill and Daniel Cullen, also of Pittsfield.

On Saturday night, July 3, four members of the Philadelphia Aeronautical Society—Miss Marguerite King Tourison, Dr. Thomas Eldridge, his brother, Frederich Eldridge, and Dr. George H. Simmerman—ascended from Point Breeze for a moonlight trip in the balloon Philadelphia. It was so long before their friends heard from them that fears were entertained that the stiff breeze had carried them out to sea. At seven o'clock Sunday night, however, word came that they had landed at two o'clock in the morning in a swamp about sixty miles down the Delaware and though none was injured. they were compelled to spend the remainder of the night in the swamp.

The 1908 report of the Aero Club of France has been issued and it shows that the club now has 1,000 active members, 8 life members and 8 honorary members. During the last year 334 balloon ascensions were made from the club grounds, at St. Cloud, carrying 608 passngers, of whom 125 were women. On the achievements of Wilbur Wright in France the report says: "The impressionistic début of Wilbur Wright, the novelty of his system, his gradual progress, the gradually increasing length of his flights, extending to over one hour with a passenger on board, and his venturous trips to a height of 300 feet from the ground have all powerfully contributed to make aviation the most popular scientific question of our age."

It is announced that the Spanish military authorities have placed an order with a Paris concern for the construction of a large airship.

Preparing to Give Tourists a Strenuous Time

Detroiters are preparing to entertain the Glidden tourists, and their plans are to make a beginning on the night of July 9. The Detroit Automobile Dealers' Association has appointed a special "Glidden Tour Committee," which will have charge of the arrangements, and the participants in the tour will have every minute of their time provided for until the contest gets away on Monday morning amid a big demonstration by military bands and various organizations. The programme at Detroit, as laid out, is:

Friday, July 9, 7:30 P. M.-Hotel Pon-

chartrain, banquet to the A. A. A. officials and directors.

Saturday, July 10, 9 to 12 A. M.—Automobile manufacturers receptions at the factories. 1 to 3 P. M.—Street parade of decorated automobles. 3 to 4.30 P. M.—Ball games and athlete sports at Belle Isle athlete grounds. 4:30 P. M.—Entertanment to the Executve Board of the A. A. A by the Automoble Club of Detroit. 7:30 to 9:30 P. M.—Band Concert on the campus in front of the City Hall.

Sunday, July 11, 12 to 5:30 P. M.—River excursion on the palace steamer City of Cleveland, up the Detroit River, through Lake St. Clair and the Flats. Lunch will be served on board from 12:30 to 2:30.

Monday, July 12.—Tour starts with demonstration; bands, military salutes, etc.

Speed Limit Worries Fort Worth

Members of the Forth Worth, Texas, Automobile Club have protested vigorously against the adoption of an ordinance before the City Commission, limiting the speed at which automobiles may may travel in the business streets of the city to eight miles an hour and in the residence districts to twelves miles an hour. The motorists declare that such a speed would compel the machines to fairly crawl along, and they suggest

that the condition of the traffic on the streets at the time should determine the lawful rate of speed.

A committee from the club also recommended that any automobile driver who has been arrested for speeding as many as three times shall have his license revoked for a year. It is thought that this action would tend to put an end to careless driving and effectually terminate speeding in the city.

Easier Access to Long Island's North Shore

Work has been completed on the extension of the Malba Drive automobile road through the new water front park laid out on the end of the Whitestone (L. I.) peninsula. The extension will open a direct automobile route to the middle sections of the north shore of Long Island and was built in anticipation of its general use from the upper part of the Bronx and the lower end of Westchester County when the new Clason Point-Malba ferry line is opened on July 25.

Connections have now been established for automobilists from formerly inaccessible parts of the north shore

with Jackson and Thompson avenues, the main highways leading to the Queensboro Bridge and the interior of Long Island, and a spur has also been built to connect with the proposed shore front drive to the government reservation at Willets Point.

Chicago Tradesmen Will Make Merry

Oliver G. Temme, chairman of the Chicago Motor Club's special committee, announced that Thursday, July 29, has been selected by the committee for the annual frolic, when Chicago automobile tradesmen will forget business cares for a day.



An Exhortation Under Three Heads

Apropos of the recent Orphans' Day out in Buffalo, the Buffalo Motorist, the organ of the Buffalo Automobile Club, has something to say to three classes of motorists.

To the man who did not respond to to the appeal for the orphans' outing, it says:

"There may have been a good reason why you did not send your car or bring it yourself, and consequently we do not say to you that your selfishness or indifference should properly be the subject of a severe lecture, but we do hope that another year will bring to you a change of heart, which will induce you to do your share in one of the most beneficent charities of the city."

To the man who sent his car, but did not come himself, it says:

"We appreciate your generosity and understand that there was probably a reason why you did not come yourself. depriving yourself of the use of your car for one afternoon gave to eight or ten unfortunate children a day which they will always remember as one of the happiest in their lives, and you are entitled to the sincere thanks of all."

To the man who donated the use of his car and drove it himself, and helped us to care for our children, it says:

"We are sure that no matter how fertile the writer, no matter how carefully phrased the expression of appreciation, no words can describe the lasting satisfaction and pleasure which you secured in doing this act of charity. We know that you were profoundly touched by the almost delirious joy of the children you had in your car, and whether you have much or little humanity in your make-up, we feel certain that not only was this a red letter day for the children, but that it was likewise one of the most satisfactory happy days of your own life."

Minnesota Motorists to Have a Tour

Colonel F. M. Joyce, president of the Minnesota State Automobile Association, is making preparations for an automobile tour which is scheduled for August 26, 27 and 28. The tour will be run under similar regulations to those governing the Glidden tour, except that only amateur owners of cars will be allowed to compete. The present plans are that the schedule adopted will range

from twelve to sixteen miles an hour, arranged according to the selling prices of the cars.

The route has not yet been selected, but three are being considered: One to Duluth and return to Minneapolis; another to Fargo, N. D., and return, and another through fifteen cities in Minneapolis where there are automobile clubs,

Proposed New Law for Georgia

A new automobile bill was recently introduced into the Georgia Legislature which provides that automobiles be registered and the owner pay a fee of \$2, the registration to expire with the sale of the car. The bill, which is closely modeled after the State law now in force in Virginia, makes no provision

for a speed limit except inside of incorporated towns or at crossings or curves where it is limited to eight miles an hour. The bill will also provide that automobile operators must come to a full stop when meeting or passing vehicles drawn by horses or mules in case they are signalled to do so.

Causes of Magneto Troubles

Magneto troubles may be divided into three classes, viz., those which stop the firing altogether in all the cylinders, those which set up misfiring in one or more cylinders, and those which lead to weak running and loss of power in all the cylinders, says the *Autocar*.

If the engine will not fire on the magneto when the switch is thrown across from the accumulators, or if no spark be visible at the plugs when the starting handle is briskly revolved, the trouble is of the first class. It is not safe to immediately infer the trouble is of this class if the engine refuse to start on the magneto, for it might be due to (a) gummy pistons, (b) dirty plugs, (c)any common valve or carburation defect, (d) a weak spark; and therefore the spark should be searched for at the plugs before proceeding to treatment. After proving beyond doubt that there is no spark at the plugs at all, we may take it for granted that the trouble lies in or behind the central revolving wiper of the distributor. (There is only one exception to this, and that an almost impossible occurrence, viz., a simultaneous derangement of all four plugs, or their wires, causing the current to travel via the safety gap on all four circuits, or to short-circuit via the engine.)

We can easily discover if current reaches the distributer wiper by putting a finger on it, and revolving the starting handle. A smart but not really painful shock wil be felt if the finger be laid on the tip of the metal shaft on which the insulated wire is fixed. If this shock be present, and is smart—not a mere gentle tickling—the fault is found. It lies in the spring pencil of the wiper, which is not making contact with the four segments it rubs against. The tip of the pencil should be freed from tough scale, and the spring behind it pulled out to give better pressure.

More probably, however, no current will be felt at the wiper. In this case, dismount the distributer, and ascertain if strong current can be felt in the brush which transfer the current from the magneto to the wiper (revolving the starting handle gently, of course, during all tests for the presence of current). If current be present at this brush, but does not reach the wiper, there is a short circuit between these two parts. Such "short" will be discernible to the eye in every case after careful scrutiny, and will be due either to dirt, oil or water, or, alternatively, to a visible crack in the insulating material. A good cleaning or application of insulating tape will provide an easy remedy.

Next, supposing current does not reach this transfer brush. In ninetynine per cent. of such cases the fault will be found in the contact-breaker, and will be visible to the eye. It may consist in (a) the platinum points not making or breaking contact, (b) no platinum on either of the screws (c) a broken metal part, (d) a broken insulating washer, or (e) short circuits by water, oil or dirt.

The remedies for the last four derangements are obvious. For the first no universally applicable rule can be given, since there is a huge variety of contact-breakers. Fiber enters into the composition of many, and fiber is obviously liable to wear. A replacement will set things right, if the maker's case of parts be on board the car, as it always should be. If not, a little ingenuity will generally suggest a "fake." Fiber is pliable, and often a liner of wood or tin can be pushed under a fiber cam to give it a more pronounced contour. In other cases, a strip of court plaster may be overlaid to raise the hump until a spare can be procured. The most difficult type to "fake" is that fitted with small fiber

discs, in which case makers' correct spares are the only cure. In some cases, mere adjustment of one of the two platinum-headed screws will set the points making and breaking again. In others, the same result can be achieved by sinking the fixed platinum point deeper in its bed, by filing down the bed, so that the diminished cam can still separate the points. The important point is to ascertain if the points actually break or not. When that is done, observation can detect the reason of their not breaking, and ingenuity can generally atone for wear, and compel them to break once more.

Next, supposing there is no spark, even though the platinums are making and breaking contact correctly, and its parts, brushes, etc., are all clean and unbroken. In this event, the derangement is very likely to be a job for the makers, and its discovery may even be a matter of difficulty to them. It should be un-

derstood that such a misfortune is indescribably rare. As a last resort, the entire magneto should be carefully dismantled, according to the directions in the makers' booklet, which are usually very full. If the derangement lie in the interior of the condenser or the armature, it will be beyond an amateur's capacity to either trace or remedy it. But very possibly a loose connection, a cracked insulator, a damaged brush, or a film of oil, dirt or water will be discerned by the eye, in any of which cases the remedy is obvious. If an armature connection be visibly broken, as may be the case with either of two external connections on several makes, the greatest care will be needed in re-making the connection. If the broken tag of wire be pulled about, further trouble will be set up, and, as a rule, a piece of wire, no longer than an inch, will have to be very gingerly spliced in, and covered with several wrappings of tape.

New Route from Westchester to Long Island

Westchester County and upper Bronx motorists who have hitherto lamented the inaccessibility of Long Island to Westchester and vice versa will welcome the establishment of a first class frequent ferry service between Oakland Beach, at Rye, N. Y., and Sea Cliff, in Hempstead Harbor.

The large ferryboat Englewood of the Fort Lee line has been chartered for the summer, and is now running on regular schedule, leaving Rye every even hour between 9 A. M. and 8 P. M. The Englewood can accommodate twenty-five large automobiles without crowding, and will make the run across Long Island Sound in about forty minutes.

A large new pier, ferry slip, and pavilion has been built at Rye at the foot of Dearborn Avenue, which is but a scant half mile down Rye Beach Ave-

nue from its intersection with the Boston Post Road. At Sea Cliff a strong it on brdge has been swung on the Long Island Railroad pier, so that cars may run on and off the boat just as easily as in the big New York ferry slips.

This ferry service will permit of many new and delightful trips by motorists, as it is but a short run from the Rye pier of the ferry across Westchester County to Tarrytown, where a ferry runs to Nyack, thus opening northern New Jersey to the south shore of Long Island by means of two ferries and fine roads across Westchester and Long Island. It will also be a novelty for automobilists to run down to Huntington from this city on the Long Island roads and cross over at Rye on the return trip to come home through Westchester.

Scotland's Big Annual Trials

The Scottish Trials, the premier automobile touring event in the British Isles, came to a conclusion in Glasgow, Scotland, on June 20, after lasting six days. Seventeen of the sixty-eight starters in the 1,000-mile trial finish the six days' run without stopping their engines. They were the following cars: Humber and Miesse, Class C, for cars whose chassis price is from £215 to £260; Mass, Cadillac, Straker-Squire, Argyll, Star and Singer, Class D, for cars whose chassis price is from £260 to £325; Vauxhall, Humber, Lancia, Rover and Talbot, Class E, for cars whose chassis price is from £325 to £425; De Dion and Sunbeam, Class F, for cars whose chassis price is from £425 to £525; Adler and Albion in Class G, for cars whose chassis price is from £525 to £650.

In previous years the competitors in these trials have made a continuous pilgrimage, but this year an innovation, consisting of two circular routes, one from Inverness and one from Pitiochry, was included in the itinerary. In last week's issue of Automobile Topics an account was given of the first two days' travels of the contestants.

The third day's travel was a circular run, the start and finish being at Inverness. In all, the tourists traveled 173 miles, through Beauly, Garve, Gairloch, Strathpeffer and Dingwall. route lay through the glorious highlands of Scotland, but the picturesqueness of the scenery was little appreciated, as a heavy mist hung over the coun-The country passed over was desolate, vegetation being very scarce and several shepherds and their flocks being the only thing seen on the early stages of the run to relieve the monotony of the trip. Near the end of the day's run several beautiful lakes, including Loch Ewe, Loch Maree and Gair Loch, were seen. The ray's itinarary included a climb up Little Gruinard Hill, which all the cars negotiated successfully.

On the next day the contestants were compelled to travel from Inverness to Pitlochry, a distance of 174 I-2 miles. The route lay along the shores of a number of beautiful lakes, and went through Fort Augustus, Spean Bridge, Kingussie, Trinafour, Kinloch Rannoch and Straun. After leaving Fort Augustus a detour was made up Glendoe Hill. The length of the hill was 980 yards and after reaching the summit the cars returned to the base and continued on their way to Kingussie. All the cars that left Inverness in the morning arrived at Pitlochry that night.

A circular run commencing and finishing at Pitlochry was the itinerary for the fifth day and it meant a trip of 163 miles through Kingussie, Grantown-on-Spey, Tomintoul, Braemar and Cairnweell Summit. The climbs the machines had to make on this day were the severest yet encountered. They included a climb up the dangerous Bridge of Brown and the Laith Road. reaching the summit of the Laith Road the tourists found themselves in a wild and desolate region. The climb up Cairnwell, the highest road in Great Britain, was also made. The cars completed the 2,200 feet climb successfully. but found more difficulty making the descent.

The final day's travels of the contestants brought them back to Glasgow, a distance of 134 miles, via Glen Lyon, Loch Tay and Callander. The early part of the day's run was similar to that of the three previous days, but after passing Callendar the machines left the Highlands, and after making the climb over the Campsie Falls completed the run to Glasgow, where they were received by a large crowd.

Cabled Credentials of Evans

It is stated by the Publicity Department of the American Automobile Association that official credentials on behalf of the United States government were extended by cablegram to the United States Consul in London last week to Powell Evans, who is the representative of the A. A. A. at the congress in London opening next Wednesday of the League Internationale Association des Touristes. Secretary F. H. Elliott, of the A. A. A., and S. Boyer Davis, secretary of the Automobile Club

of Philadelphia, had a conference in Washington last week with Vice-President Sherman, Secretary of State Knox and Attorney General Wickersham relative to the United States governments recognition of the only American representative at this international automobile congress.

Besides being the official A. A. A. representative at this congress, Mr. Evans is the A. A. A. representative on the National Conservation Commission.

After Joy Riding Officials

New York city officials who have automobiles provided them will now find it a hard thing to joy ride in the municipal machines without the public being aware of it. The Board of Aldermen passed on July 6 the ordinance introduced by Benjamin B. W. Brown, which provides that all motor cars owned by the city shall be marked in such an ostentatious manner that every

one will be able to identify them. The ordinance also provides for the imposing of a penalty of fifty dollars on on any one using a car without the distinguishing mark or using it out of office hours for other than official business. Another ordinance by Alderman Brown, restricting automobile headlights to sixteen candle power, was passed.



PRESIDENT AND MRS. TAFT CHANGING TO THEIR WHITE STEAMER AT BEVERLY, MASS.

Prolonging the Life of Macadam

Automobiles were common in France some years before they became a frequent sight on American highways, and the French engineers are, accordingly, that much ahead of the Americans in their study of the dust problem on ma-The difficulty of maincadam roads. taining macadam under this new style of traffic is most acutely felt in the Bois de Bologne in Paris. It is the custom in the French capital to sprinkle the wooden pavements of the principal thoroughfares, such as the Rivoli and the Champs Elysees five or six times a day.

The consequence is that every automobile in Paris is obliged to use steel studded tires all the time, as it would be manifestly impossible to stop and put on tire chains or other anti-skid device every time the vehicles approached a strip of wet pavement. The steel studded tire on these vehicles, driven at the high speed which is permitted in Paris, is probably the most destructive agent to macadam roads that could possibly be devised. Nearly all of the traffic through the Bois de Bologne consists of automobiles—the powerful low-geared little taxicab comprising a large proportion of the total.

When these automobiles, threading their way through the mazes of park traffic on a sunny afternoon, put on their brakes sharply and drag these steel-studded tires along the macadam, the result can be easily imagined. Ordinary macadam would not survive a week. The park authorities impose a special tax on every automobile that passes through the gate, as a sort of fine for the damage that the vehicle will cause to the roads in the park.

The maintenance of the roads has been brought down to a fine point. A considerable force of men is constantly at work in one place or another in the park keeping the roads in smooth, dustless condition.

Probably every maker of dust preventatives has endeavored to secure the large market for his material which the park contract would offer, but tar is the only remedy which has found accept-Special apparatus for heating and distributing the tar is employed. The tar is spread over the surface of the macadam while hot. It percolates into the fine pores of the road, and, on cooling, solidifies there, forming a matrix around the stone, and holding it there so firmly that automobile tires cannot tear it loose or stir it up into dust. The wear on the road is thus, to a large extent, prevented. The roads are carefully cleaned and are rarely or never sprinkled with water, the tar treatment being sufficient.

The acuteness of the problem in the Bois de Bologne makes the endorsement by the authorities of the tar treatment highly significant. Road engineers all over the world have been reaching the same conclusions, and at the International Road Congress in Paris, a great proportion of the time was given over to the discussion of the best ways and means of utilizing tar, the superiority of the treatment over dust palliatives such as oils and sticky solutions of water being tacitly conceded.

The tar which is used by the French engineers is not raw or crude tar, but one which has been subjected to a certain amount of distillation and refining, so that uniformity of results can be made reasonably certain.

In this country that particular preparation of tar is known as Tarvia, and is made in three grades of different density, to provide for varying conditions in which it is to be used. The densest and heaviest grade of the tarvia is known as Tarvia X, and is sufficiently

thick in its consistency to fill the large voids of the one and one-half inch stone with which it can be advantageously mixed in the course of building a new road.

For re-surfacing, Tarvia A is used, a lighter material, as Taxvia X is too dense to penetrate the small voids of the stone screenings, while for an old road,

where all voids are filled with dust, a still lighter material, called Tarvia B, is employed.

The use of tarvia in any of the three ways effects so large a reduction in the cost of proper maintenance as to more than pay for itself. If Tarvia is used ? dustless road, accordingly, is less expensive than a dusty one.

Good Sport at Briarcliff Manor

Residents of Briarcliff Manor witnessed an enjoyable automobile hill-climbing contest on Monday, July 5. Twenty-five machines owned by residents of Briarcliff Manor and vicinity participated in the events, and the sport, which was witnessed by several hundred persons, was interesting and exciting.

A Buick won the class B event, for cars from \$1,200 to \$3,500, its time for ascending Manor Hill being 63 sec-

onds. Class C, for cars over \$3,500 was won by an Allen-Kingston in 50 1-5 seconds. A Stearns car finished second in 55 seconds.

Class D, a free-for-all for residents of Briarcliff Manor and vicinity, was won by an Allen-Kingston in 494-5 seconds.

A number of cars sent from various factories competed in the dealers' freefor-all. A Stanley Steamer won the event in 49 2-5 seconds.



MRS. RAMSEY AND COMPANION, WHO ARE CROSSING THE CONTINENT IN A MAXWELL



A WEEKLY JOURNAL DEVOTED TO THE INTERESTS OF AMERICAN AUTOMOBILISTS.

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Why City-Owned Cars Go Wrong

That the use of city-owned automobiles for other than public purposes has become "a matter of public scandal" is the open declaration of the Kings County (Brooklyn) Grand Jury. It is charged that the city's automobiles are used, habitually and flagrantly, for pleasure purposes and, sometimes, even for "joy rides" of the most brazen kind.

There is little doubt that the charge is borne out by the fact, and that a great many of the motor vehicles owned by the city are required to perform double work. This may explain why maintenance charges are so high. Frequently the pleasure rides impose a more difficult task upon the cars than the regular work. At any rate, the pleasure jaunts are necessarily clandestine and, therefore, something to be concealed. If accidents occur, resulting in damage to the car, the fact must become known, but if the trouble is a minor one, or the result is imperfect working of some of the parts, the car is usually brought in and a discreet silence maintained regarding the matter.

The result is that the car is taken out the next day in bad order, whereas it should have been looked over and seen to be in good order. Everybody knows what is liable to happen to a car when there is something wrong with it at the beginning of a hard day's work, and if this liability does not become an actuality good luck and not good management has to do with it.



The temptation to make illegal use of city-owned cars is a pressing one, and it would require close scrutiny and a rigid inspection system to prevent it. Instead of this, we are more apt to find laxity prevailing, from the highest, or almost the highest, to the lowest public official, thus almost placing a premium on practices of this sort. It is much to be regretted, but as long as human nature remains what it is, nothing but severe measures will avail to bring about a reform.

Not an Infant Industry---Yet

That greatness has its penalties was illustrated recently in the case of the Wright brothers. These celebrated aviators have unquestionably accomplished marvels, but it is scarcely to be expected that they can rise superior to all the elements which may affect their flights. Consequently, when they found, the other day, that large delegations from both houses of Congress had gathered to view their ascension, they were perturbed.

Some men would have bowed to the inevitable and concluded that, in the presence of such notables, there was nothing to do but to make the ascension and trust to its being successful. But not so the Wrights. On more than one occasion they have made it perfectly plain that they not only have backbones of unusual rigidity but minds of their own. Further proof of this fact was afforded when they flatly refused to perform for the benefit of the Congressmen.

Plainly someone had blundered. The legislators should never have been invited, and it is not easy to see what object was in view in inviting them. Presumably there are some subjects with which the average Congressman is thoroughly conversant, but there are a vast number of others concerning which they are profoundly and lamentably ignorant. One of these subjects is aviation. It would probably have made little difference with them if the Wrights had ascended and put their aeroplane through a variety of "stunts" for the delectation of the Solons present. It would have been akin to casting pearls before the swine, and the visitors would have returned to Washington still of the same opinion as when they set out—that perhaps in the course of a few scores of years aerial navigation may amount to something, but at present it is still in the experimental stage, and the experiments are to be conducted by individuals.

Not having been officially designated an infant industry, aerial craft are not fit subjects of that protection which Congressmen have so much at heart.

It is suggested by a Chicago man that every automobilist be required to equip his car with an automatic whistle which will sound whenever the car is driven beyond the speed limit. The plan is being investigated by the Chicago aldermen, and may find form in the city's legislation. The proposer of this wonderful expedient does not seem to have remembered that speed limits vary.



TRADE DEPARTMENT

The New Winton Six 48 H.P.

Many new features mark the 1910 Winton product and distinguish it from that of the present year, although the changes are chiefly detail ones. The Winton company, as announced a short time ago, will continue to produce sixes only, having found that the great success which has attended these models makes it quite unnecessary to produce any other types.

Notable among the features referred to is a four-speed transmission and an enlarged multiple disc clutch in the 48 hp. car, now in its third year, which has enjoyed wide popularity. It's success is evidenced by the fact that the motor is identically the same as in the 1909 model.

All the working parts of the Winton Six are enclosed, except the fly wheel, and yet accessibility is a cardinal feature of Winton construction. The multiple disc clutch is 50 per cent. larger in diameter, and, with four springs, requires but slight foot pressure in operation.

A newly perfected carburetter emphasizes the motor's beautiful operation. The frame is inswept in front to give a shorter turning radius. Springs of increased size are semi-elliptical all around, permitting low suspension of body. Four shock absorbers and four rubber bumpers are fitted.

The front axle is of channel section pressed steel. The wheel base is 124 inches—an increase of four inches.

The body is longer and wider—a beautiful, roomy creation, with bucket seats forward and wide tonneau doors. Seven passenger equipment extra. The running boards and guards are wider, and the rear guards drop over the wheels. The running boards and front

floor are covered with pressed aluminum.

Other new features are: New design radiator, with longer tubes, longer filler, and hard-rubber cap; hard-rubber steering wheel rim, longer spark and throttle levers on steering column, brake and gear change levers may be nearer the seat if the purchaser desires, increased brake leverage, solid brake spiders, long or short pedals at purchaser's option, carburetter primer on dash, improved design auxiliary tank on dash, Eisemann dual ignition with storage battery for starting, oil cups on springs, larger exhaust tube, larger front universal joint with lubricant retainer.

The Winton self-starting device is continued without change. This device stores in air tank pressure from the front cylinder and distributes it through a rotary valve to the individual cylinders in firing rotation. The motor is started merely by pressing a foot button on the dash, the air pressure then forcing the piston past the firing point.

This device has but one moving part, the rotary valve, and is therefore as simple as it is effective. Due to this device, the Winton Six has no starting crank in front, this element being carried in the tool box along with the other supplies that are only infrequently required.

Winton Six cylinders are offset, and valves are all on one side. Force-feed lubrication is a feature, as is also centrifugal pump cooling. An attachment on the self-starting device provides for the inflation of tires without the use of a pump.

The main gasolene tank is placed astern and has twenty-two gallons capacity. Three gallons are contained in

the reserve supply compartment, and cannot be used accidentally or without warning that the main gasolene tank is empty. This safety feature insures against being stranded on the road through lack of fuel. Gasolene is raised under two-pound pressure from this tank to the auxiliary tank on the dash, from which it flows by gravity to the carburetter. Oil tank is carried at the left side of the motor.

Bodies are built entirely of wood on special Winton design. The beauty of body lines and of Winton finish is striking. The price remains unchanged at \$3,000.

"It has been my aim in producing this car," says Mr. Winton, "to give Winton buyers the absolute limit of value, and I believe the aim has been successful. The changes we have made are only incidental, not radical, except that, having found the motor capable of doing more work than it has been required to do, we have supplied a new high-speed gear in the transmission and have greatly enlarged the diameter of the clutch to carry the top-speed power."

Lane 1910 Models at Lower Prices

Material reduction in price will mark the 1910 product of the Lane Motor Vehicle Company, Poughkeepsie, N. Y., makers of the Lane steam car, which is now entering upon its tenth year. The offering will consist of four models, comprising runabout, five-passenger, close coupled and seven-passenger cars. On the 20 hp. chassis the runabout and five-passenger bodies will be placed, and on the 30 hp. chassis the close coupled and seven-passenger bodies will be placed.

The same general design will be carried out as in the 1909 models and few changes will be made in the mechanical construction. The principal change will be in price, which has been materially reduced. Increase in business, which means larger output, perfected facilities, together with modern and complete factory equipment, make this reduction

possible. The same high standard of construction and materials will be maintained, and the equipment will remain the same.

The runabout will be known as Model 19 and will sell for \$1,250. The five-pessenger car will be known as Model 20 and will sell for \$1,500. The close coupled car will be known as Model 21 and will sell for \$2,400. The seven-passenger car will be known as Model 22 and will sell for \$2,500.

All the cars will have aluminum bodies and fenders. The demand for a good reliable steam car is increasing and what is causing this more than anything else, is the low cost of upkeep and the long wear. The 1910 cars will be ready for market July 1. Already the orders for these cars are ahead of the supply, which indicates a large business for these cars this coming year.

Two Companies Adopt Dow Rims

The new standard remountable rim has been adopted by two well-known tire concerns—the Hartford Rubber Works Company and the G. & J. Tire Company. Announcement of this adoption was made this week, and the fact has attracted considerable attention in

the trade. The Dow rim is extremely neat in appearance and is operated by a key which loosens the rim over the felloe, after which the rim and tire can be lifted off without difficulty. The rims are now furnished both with regular clincher or universal Q. D. rims.

Winton Men Make Merry

There were doings out of the ordinary in Cleveland last week. The reason for them was the annual convention of the Winton branch managers and road men, who had gathered there to discuss plans for 1910, and to learn what the Winton company was preparing for them.

It proved to be a lively week. There was something doing every minute from breakfast to good-night. Baseball, field sports, a yacht ride, a theatre party and a trip to Luna Park were only part of the doings, which included every variety of luncheon and dinner except the formal kind.

The participants were: Vice-President Henderson, Secretary Brown, Sales

Manager Churchill, Advertising Manager Mears, Parts Manager Smith, Engineer Anderson, Traffic Manager Baughman, Superintendent Weidig, Purchasing Agent Ranney, and the following branch managers and road men:

Messrs. Hinchliffe, of Boston; Brown, of New York; Calvert, of New Jersey; Maltby, of Philadelphia; Stockbridge, of Pennsylvania; Duck, of Baltimore; Kiser, of Pittsburg; Brockway, Sealand and Walley, of Cleveland; Henderson and McCrea, of Detroit; Davis and Roe, of Chicago; Johnson, of Minneapolis; Lewis, of Kansas; Miller, of Seattle, and Owensey and Arbuckle, of San Francisco.

Insurance Companies Recommend Chains

Insurance men are well known to believe in the proverb about an ounce of prevention. For this reason the action of well known insurance companies in recommending the use of tire chains is particularly noteworthy. The recommendation is made in a circular sent out, in which those insured in the companies referred to are asked to use every precaution toward avoiding accident, one of which is the fitting of non-skids when the roads get wet and slippery. The circular is a warning notice to policy

holders, and reads as follows: "This company does not presume to dictate to policy holders the precautions which they shall observe for the prevention of accidents. It does, however, expect that he will do his duty to the public at large by using the utmost care, and among other things we urge upon all policy holders the advisability of using such safety devices as the ordinarily cautious man would employ, such as adequate brakes, signals, and anti-skid chains."

Chapin Goes Abroad for the Summer

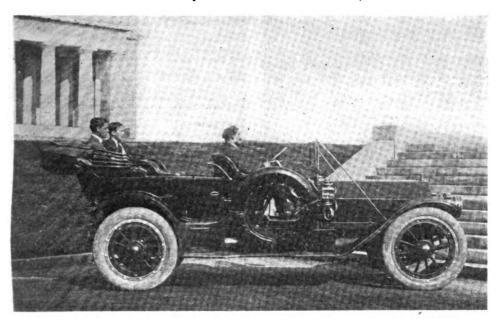
Next week R. D. Chapin, treasurer and general manager of the Chalmers-Detroit Motor Company, will sail for Europe to spend the summer. He expects to visit England, France, Germany and Italy, and take in during the summer a couple of the big foreign automobile races and the trials for the Gordon Bennett Aviation Cup.

"Of course, I know that one one does

not have to go to Europe to see good automobile races," said Mr. Chapin. of seeing the automobile races and studying progress in aeronautics, although I shall take in a number of the big events, as long as I am on the ground. I will be particularly interested in watching the speed results the foreigners are able to get with small cars."

Biggest Tires Ever Fitted to an Automobile

It is a bold man who will predict that the maximum in tire sizes has been reached. Larger sizes are being constantly used and found to give such excellent results that their adoption as shown in the accompanying illustration. The car is a 90 hp. six-cylinder Stearns, fitted with Fisk tires and removable rims of remarkable dimensions. The rear tires are of 40x6 size and the front



STEARNS CAR FITTED WITH BIGGEST TIRES

standard speedily takes place. Then it follows, almost as a matter of course, that something still larger is brough out.

What is believed to be the largest set of tires ever built for an automobile is

are 40x5. Those in the rear are said to be the largest ever made and carried in stock, and while they are rather bulky in appearance, they add greatly to the easy riding features of this car.

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INDEX TO ADVERTISERS

Automobiles (Electric)—
Babcock Electric Carriage Co. 968 Baker Motor Vehicle Co. 911
Automobiles (Gasolene)—
Chaimers-Detroit— Chaimers-Detroit Motor Co
LocomobileLocomobile Co. of America. 971 Matheson-Matheson Motor Car Co. 971 Maxwell-Briscoe Motor Co. 971 Mora
Overland Automobile Co. 971 Peerless Motor Car Company
New York to Mohonk Lake Tour 940 Studebaker Automobile Co
Automobiles (Steam)— The White Company
Batteries— Stanley & Patterson
Bodies— Springfield Metal Body Co
Champagnes— Pommery
Cigarettes— Nestor
Coils— Heinze Electric Co
Dust Preventives 7 Tarvia-Barrett Mfg. Co
Electric Welding— Standard Welding Co
Eye Tonic Murine Eye Remedy Co
Graphite— Joseph Dixon Crucible Co
Ignition Devices— 969 A. R. Mosler & Co. 969 C. F. Splitdorf 970 Electrana Magneto—Lavalette & Co. 972 Heinze Electric Co. 967 J. S. Bretz & Co. 916

Correspondence School of Motor Car Practice	971
Lamps— Badger Brass Mfg. Co	972 968
Lubricants— Columbia Lubricants Co	970
Magnetos Eisemann MagnetoLavalette & Co	972
Oils— Columbia Labricants Co	969
Ornaments Billiken	914
Parts Billings & Spencer	97 0
Photo Engravers— Sterling Engraving Co	968
Second-Hand Dealers— Times Square Auto Co	937
Shock Absorbers— Bi-Cal-Ky Auxiliary Spring Co	
Hartford Suspension Co	970 970
Hartford Suspension Co	970
Harrford Suspension Co	970 970
Hartford Suspension Co	970 970 969
Hartford Suspension Co Signaling Devices Nightingale Whistle Co Spare Wheels United States Spare Wheel Co Spark Pluge A. R. Mosler & Co Timers A. R. Mosler & Co	970 970 969
Hartford Suspension Co Signaling Devices Nightingale Whistle Co Spare Wheels United States Spare Wheel Co Spark Plugs A. R. Mosler & Co Timers	970 970 969 969 968 968 914 915 912
Hartford Suspension Co Signaling Devices Nightingale Whistle Co Spare Wheels United States Spare Wheel Co Spark Pluga A. R. Mosler & Co Timers A. R. Mosler & Co Tires Ajax-Grieb Rubber Co Continental Caoutchouc Co Diamond Rubber Co Firestone Tire and Rubber Co Firestone Tire and Rubber Co Morgan & Wright.	970 970 969 969 968 968 914 915 915
Hartford Suspension Co Signaling Devices Nightingale Whistle Co Spare Wheels United States Spare Wheel Co Spark Pluge A. R. Mosler & Co Timers A. R. Mosler & Co Tires Ajax-Grieb Rubber Co Continental Caoutchouc Co Diamond Rubber Co Firestone Tire and Rubber Co Morgan & Wright. Republic Rubber Co Tore Grips	970 970 969 969 968 968 914 915 912 915
Hartford Suspension Co Signaling Devices Nightingale Whistle Co Spare Wheels United States Spare Wheel Co Spark Plugs A. R. Mosler & Co Timers A. R. Mosler & Co Tires A jax-Grieb Rubber Co Condinental Caoutchouc Co Diamond Rubber Co Firestone Tire and Rubber Co Firestone Tire and Rubber Co Morgan & Wright Republic Rubber Co Tire Grips Weed Chain Tire Grip Tops	970 970 969 969 968 968 914 915 912 910 970

News Notes

C. L. Williams, of Newark, N. J., has opened a new automobile supply house at 312 Halsey Street.

The Collinson Auto Co. has been organized at Arkansas City, Kan., by H. S. and Grover Collinson.

The Inter-State agency for St. Louis has been placed with the Lindsey Motor Car Co., 419 North Euclid Avenue.

Long Branch has a new automobile 'bus line, which operates three machines on Broadway on a ten-minute headway.

John N. Taylor, of Meberly, Mo., has engaged in the automobile business there and at Huntsville. He will handle Buicks and Maxwells.

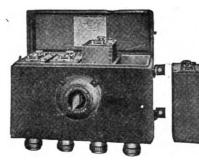
The Citizens' Motor Car Co. has been organized in Oklahoma City, Okla., with a capital of \$25,000. Weston Atwood is president and C. A. Newman, manager.

The Harry S. Houpt Company, of New York, has started booking orders for its next output of Herreshoff cars. The first series has practically been disposed of; for the last of them have arrived and will go to the first buyers.

Jesse Froehlich, of the Times Square Automobile Company, and managing director of the Benz Auto Import Company of America, has just returned to New York from a trip to the West, during which he visited the Chicago branch and the newly established St. Louis headquarters of the Times Square Automobile Company. While in Kansas City Mr. Froehlich selected a site for another new branch of the Times Square business.

Recent performances of the Fiat "Cyclone" and other Fiat cars, with Ralph De Palma at the wheel, have brought the winning qualities of Monogram Oil to public notice. On Saturday, June 28, the "Cyclone," which holds so many world's track records, broke the mile record for the Point Breeze track, when it went a lap in 1.01 4-5. De Palma, in a stock Fiat, won the 50-mile stock chassis race in 57m. 42s., finishing 7 minutes ahead of the nearest competitor, and also won the 10mile event in 11m. 46 1-5s. A week previously, at Readville, Mass., De Palma, in the "Cyclone," broke the world's track record for 25 miles, covering the distance in 23m. 35s., averaging 56 3-5s. for each of the 25 miles. In all of these races the motor worked splendidly, a great testimonial to the lubricant used.

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Like a float of Uncle Sam's battleships pulling away from their native shore on their initial trip o some distant port, four Premier cars, christened "The Flying Squadron," headed north out of Indianapolis this week on a run to Detroit, where they go to take their place in the 1909 Glidden tour, which is scheduled to start from the City of Straits on next Monday. The cars, with their clear, distinctive lines, set apart in a neat dress of regulation battleship gray, made a very pretty picture. For the past three years the Premier has played a prominent part in the Glidden tours. In 1007 it was chosen as pilot car; in 1008 as pathfinder and pilot car, and this year has been selected as the chairman's car, which is the official pacemaker of the tours. The chairman's car will be driven by Ray F. McNamara, who has driven the Premier to victory in several of America's most famous contests. The other occupants of the car will include F. B. Hower, chairman of the A. A. A. Touring Committee; C. J. Glidden, from whom this American classic in motordom takes its name, and E. L. Ferguson, secretary of the A. A. A. Touring Board. Besides the pacemaker, the Premier Company has three contestants in the tour. Entry No. 1, a 40 hp. touring car, will have at the wheel that veteran driver, Webb Jay, while Harry Hammond, who has made an enviable reputation in the tours of the past, will drive entry No. 2. Entry No. 3, a Premier Clubman, will battle for supremacy in the Detroit trophy contest.

Although the Pierce-Arrow Motor Car Company, of Buffalo, never has maintained a team of professional drivers for contests, it is a fact that it has been uniformly successful in the classes of contests it has entered, endurance runs and hill climbs. This year will mark no exception to this custom since for the Glidden tour, in which four cars are entered, the drivens and mechanics have been chosen from all parts of the country. In fact, only one of the men comprising the entire list is connected directly with the factory, this driver being Walter Winchester, who will pilot one of the touring cars. It would be hard to find a group of men with more widely segregated homes, in fact, than the eight who will have the Pierce-Arrows in charge in the Glidden tour this year. No two of them come from the same city. Some have had experience in A. A. A. tours before, but others have not. Two six-cylinder, 48 hp. Pierce-Arrow touring cars will compete for the Glidden trophy. Forbes S. Dey, of Kansas City, will drive one, with E. H. Grady, of Denver. as his mechanic, while Walter F. Winchester, of Buffalo, will pilot the other, with A. A. Ledermann, of Utica, as mechanic. For the Hower trophy two six-cylinder, 36 hp. runabouts have been entered, the first to be driven by John S. Williams, of New York, with Andrew J. Hettrick, of Philadelphia, as mechanic. Charles Schofield, of Detroit, will be at the wheel of the second and Frank Jungjohann, of Davenport, Iowa, will be in the mechanic's seat.

Mention "Automobile Topics" when writing.

INCORPORATIONS.

Wilmington, Del.—Brazier Garage Company, with \$100,000 capital. Incorporators. Carter G. Glenn, James K. Davis, John Y. Sinton and Robert Summers.

Brooklyn, N. Y.—The Barber Auto-Car and Repair Company, with \$15,000 capital. Incorporators: A. S. Barber, R. A. Rendich and William Barber.

Cleveland, O.-Woodland Wagon and Auto Company, with \$25,000 capital. Incorporators: G. H. Senebaugh, G. E. Ray, J. M. Baker, F. G. Moelland and E. Witoksky.

Chicago, Ill.—Bishop, Delano & Co., with \$50.ooo capital, to manufacture automobile accessories. etc. Incorporators: H. J. Bishop, J. K. Delano. Jr., and F. J. Beier.

Buffalo, N. Y.-Queen City Auto Livery Company. with \$25,000 capital. Incorporators. C. V. Roty, H. C. Shufeldt, and W. J. Hickey.

Manlius, N. Y.-Manlius Motor Company, with \$20,000 capital. Incorporators: George A. Fowler, M. Joe Topp and William Topp.

Pittsburg, Pa.—Consumers Auto Supply Company. with \$25.000 capital. Incorporators: E. C. Negley, M. L. McKain and B. Slonecker.

Albany, N. Y.—Eastern Auto Transit Company, with \$35,000 capital, to operate a stage line between Albany and Schenectady. Incorporators: W. A. Cryne, E. D. Wintersteen and C. B. Henry.

Boston, Mass.—Beacon Taxicab Company, with \$50,000 capital. Incorporators: A. Garcia, et al.

Washington, D. C.-Pittsburg Motor Vehicle Company, with \$50,000 capital, to manufacture motor vehicles. Incorporators: Harry B. Leary. Arthur, C. Moses and Jules A. Demonet.

Birmingham, Ala.—The Taxicab Company, with \$2,000 capital. Incorporators: H. S. Bailey, H. M. Faylor and G. H. McLin.

New York, N. Y.—Quadruplex Auto Tube Company, with \$600,000 capital, to manufacture automobiles, etc.: Incorporators. Phelan Beale, M. D. Nave and G. U. Smith.

New York.—A. Elliott Ranney Co., with \$25,-000 capital. Incorporators: Arthur M. Day, A. Elliott Ranney and Dr. E. S. Steese.



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(F. O. B. factory, Detroit, Mich.)

All quick detachable, \$1.00 extra.

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Maps before beginning your tour

Automobile Calendar

- July 7-17.—Light agricultural motor competition at the Winnipeg Industrial Exhibition.
- July 10.—Santa Monica, Cal., road race, 205 miles, under the auspices of the Automobile Dealers' Association of Southern California.
- July 12.—Start from Detroit, Mich., of the Sixth Annual A. A. A. Tour for the Glidden trophy.
- July 16-17.—A twenty-four hour track race meet on the Bennings track, at Washington, under the auspices of the Maryland Motor Car Racing Association, of Baltimore.
- July 17.—Sealed bonnet endurance contest by the North Jersey Automobile Club of Paterson.
- July 17-26.—An exhibition of agricultural motors at Amiens, France.
- July 19.—Head-lighting Trials, under the auspices of the Royal Automobile Club of Great Britain.
- July 23-24—Reliability and consumption competition in connection with Royal Automobile Club of Great Britain Provincial Meeting.
- July 26-28.—First Annual Automobile Show and Track Races in Amarillo, Texas, under the auspices of the Amarillo Automobile Show Association.
- July 31.—Hill-climbing Contest in Richfield Springs, N. Y.
- July 31.—Automobile Race Meet at Elm Ridge Park, Kansas City, Mo., under the auspices of the Kansas City Automobile Club.
- July 31.—Annual London to Cowes Race, under the auspices of the British Motor Boat Club.
- July 31.—Club Run and Shore Dinner at Olympic Park, Newark, under the auspices of the New Jersey Automobile and Motor Club.
- August 5.—Fourth annual hill-climb on the Algonquin, Ill., hill, under the direction of the Chicago Motor Club.
- August 11, 12, 13.—Motor Boat Carnival off Newport, R. I., under the auspices of the Newport Yacht Club.
- August 22.—A series of Speed Trials, under the auspices of the Automobile Club of Frankfort-am-Main.
- August 22-29.—Aeroplane races at Rheims, France, under the auspices of the Aero Club of France.

Mention "Automobile Topics" when writing.

August 24-27.—Circuit of Ardennes; Liederkerke cup and voiturette race, under the direction of Automobile Club of Belgium.

August 26, 27, 28.—Three Days' Endurance Contest, under the auspices of the Minnesota State Automobile Association.

August 29-September 3.—Small car competition, under direction Automobile Club of Germany.

September 4-5.—Mont Ventoux hill-climbing contest, under the auspices of the Vanclusien Automobile Club.

September 6-11.—Six-days' motor carnival, under the auspices of the Lowell (Mass.) Automobile Club.

September 11-19.—Florio cup race, under the auspices of the Automobile Club of Bologne,

September 12.—Two automobile road races, under the auspices of the Automobile Club of Ostend.

September 15.—Start of endurance contest from Denver to Mexico City.

September 19.—Semmering hill-climb.

October 2-17.—Aeronautical Salon in the Grand Palais, Paris France.

October 7.—Second annual stock chassis race in Fairmount Park, Philadelphia, under the auspices of the Quaker City Motor Club.

November 6-13.—Automobile Show at Atlanta, Ga., at Auditorium Armory, under auspices National Association of Automobile Manufacturers.

December 29-30.-Fourth annual mid-winter endurance contest, under direction of the Quaker City Motor Club.

December 31-January 7.-New York City, Grand Central Palace; Decennial International Automobile Show. Under management of the American Motor Car Manufacturers' Association with the Importers' Automobile Salon and the Motor and Accessory Manufacturers. Alfred Reeves, general manager, 505 Fifth Avenue, New York City.

January 8-15.—Tenth Annual National Automobile Show in Madison Square Garden, New York, under the auspices of the Association of Licensed Automobile Manufacturers.

Feb. 5-12.—Ninth Annual National Automobile Show in Chicago, under the auspices of the National Association of Automobile Manufacturers.

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cover the full width of They illuminate

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I'm the God of Motor Cars,
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Breaks and accidents no longer will assail you.
Place me on your engine hood
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I do not claim magic power, but everywhere, everyone says I'm more potent than a rabbit's foot in the hind pocket of a seventh son of a seventh son.

This illustration represents a Billiken Bas-Relief $4\frac{1}{2}$ inches high, made of brass with the figure of Billiken embossed about $\frac{5}{8}$ of an inch at the highest point from the oval surface. It has small holes at the sides, top and bottom, so that it can be easily attached to the front of a radiator with a fine brass wire furnished.

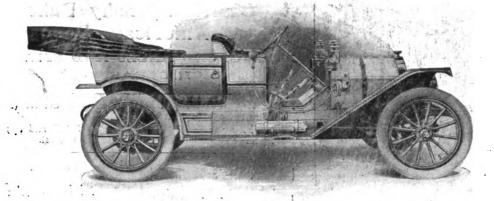
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Whether you buy this car or not, you owe to yourself to investigate it.

A Haynes at \$2,000 is certainly too good a proposition to ignore if you are on the market for any kind of a car.

Mail coupon below and we will send booklet giving full details of this superb car, and will advise you where you can secure a demonstration.

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Please forward literature concerning your Model 19 and advise where I can have a demonstration should I desire it.

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If you are of a mechanical turn, the perfect mechanism of the STUDEBAKER will appeal to you.

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We will be glad to let you see what they say about their cars any time you call. Many of them have owned various makes of the highest priced foreign cars—but now swear by the STUDEBAKER.

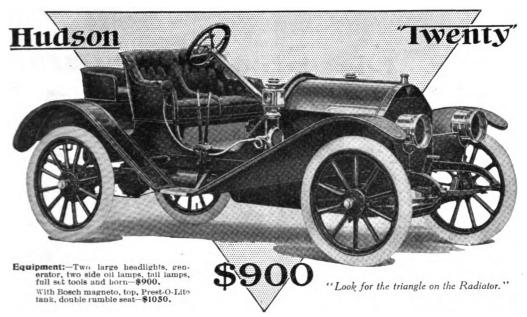
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Strong-Speedy-Roomy-Stylish

There have been many low priced cars, but never one so big, strong, speedy and good looking as this one. In this car you find that something called class—that something which other cars at or near this price have lacked.

The officers of the Hudson "Twenty" have been the first to appreciate that it is as easy to make a good looking car and sell it for less than \$1,000 as it is to make the other kind.

Most low priced cars have been too small. In the Hudson "Twenty" you get a big car with a 100 inch wheel base, and 32 inch wheels. It is as roomy as any roadster made, regardless of price. To insure absolute comfort to the driver and passenger, the foot pedals are adjustable. A woman can drive it with as much comfort as a 6-foot man.

Some High Grade Features of this 1910 Model

Sliding Gear Transmission

It has a sliding gear transmission, selective type, three speeds forward and reverse, such as you find on the Packard, Peerless, and other high grade cars.

Its motor is the Renault type, patterned after the famous French motors of that name.

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With a bore of 3^3i^4 and a stroke of 4^12^9 it conforms to the most up-to-date foreign design, a long stroke motor.

The front axle is a one piece drop forged I-beam section of the best grade of open hearth steel carefully heat treated.

Three-quarter Elliptic Springs

The judgment of the best designers in the world is back of the suspension of the Hudson "Twenty." Semi-elliptic in front, and three-quarter elliptic rear springs are the easiest riding under all conditions, faster and due to their peculiar actions, are the least liable to fracture. This is the spring suspension found on the Hudson "Twenty." Springs are unusually long, and mounted with heavier and stronger fittings than on many cars twice the weight.

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The carbureter has been especially designed for the motor, insuring absolute control at all speeds,

The fan, as in the best high-priced cars is belt driven; and so on throughout the entire car—judged by every mechanical and engineering standard, the Hudson "Twenty" is thoroughly up-to-date without embodying any experimental features.

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Any Hudson "Twenty" will do fifty miles an hour. It has all the power you could ever have use for. It not only looks like the most expensive cars, but it acts like them too. It is strong, speedy, roomy and stylish.

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Two More Great Races are

Diamond

Tire and Diamond Demountable Rim Triumphs

Heavy car race, 201 6-10 miles, Los Angeles, won by Apperson. Hanshue driver, 188 minutes 3 seconds. A new record for stock cars. Diamond casings and tubes used.

Light car race, same distance and place, won by Chalmers-Detroit, Dingley driver, 218 minutes 35 seconds. Diamond casings and tubes.

On neither car was any tire change whatever made.

THE DIAMOND RUBBER COMPANY Akron, Ohio

We guarantee tires only on inspected rims. See that rim bears mark of inspection as shown herewith.

Again the Glidden Tour

WATCH the Tires. WATCH

Diamond TIRES

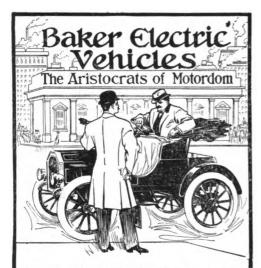
Last Year's Record:

Average tire cost per car on DIA-per car on Other MOND, \$16.88 | Makes - \$64.94

This Year's Figures---WATCH

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THE "BAKER" name is a big asset to the dealer, for it is identified with all that is best in electric automobile construction a fact that is of great material help in selling.

Baker Electric Vehicles are made in the great Baker factory-the largest of its kind in the world-where quality, durability and efficiency are built into each Baker.

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Unequaled economy in the use of Electric Current. Batteries in series at all speeds. Longest life of the battery. Quiet center chain drive. Perfect alignment under all condition::. Lowest transmission loss. Exide batteries standard equipment.

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We Are the Largest Dealers of New and Used Cars in the World

NO MATTER WHAT CAR YOU WANT, WE HAVE IT. We have at present on the floors of our various buildings an exceptionally large and good line of popular makes and reliable automobiles.

IF THE SAVING OF MONEY IS AN OBJECT YOU WILL DO WELL TO COMMUNI-CATE WITH US, EITHER IN PERSON OR BY MAIL

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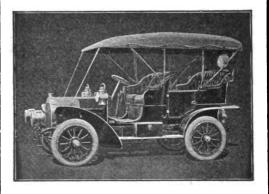
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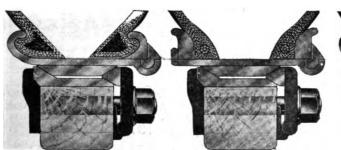
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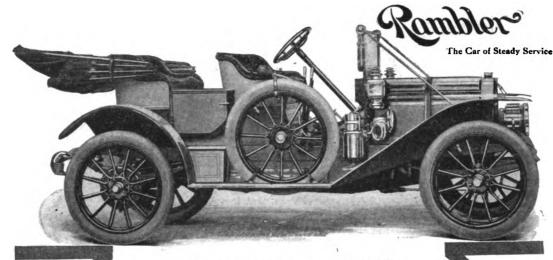
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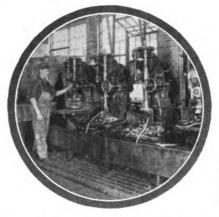
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Vol. XVIII.

NEW YORK, JULY 17, 1909.

No. 15.

TABLE OF CONTENTS

	FAUE
Parade Held at Detroit Before Start of A. A. A. (Glidden) Tou	
Topics	987
Brighton Beach To Be Scene of 24-Hour Racing	
A. A. A. Tourists Start After Doing Detroit Thoroughly	Illustrated 990
Some Queer Things About Municipal Automobiles	
Drive 17,003 Miles Without Costing a Cent for Upkeep	
Tire Prices Go Up	
Denver's Fourth of July Road Race	
The Northward Trip of the Good Roads Scouts	Illustrated 1001
Automobile Topics Touring Supplement—1909 A. A. A. Tour. Valparaiso	Section 1, Detroit to
Delaware Retorts in Kind	
Condemnation of New York Toll Bridges Begun	
The Goods Start on a Long Trip	
Canadian Premier is Presented With a Car	
An Ideal Resort for Motorists	
Three Causes of Tire Troubles	
Maxwell-Briscoe's Sensational 1910 Model	
Putting Strength and Enduring Qualities into the Automobile	
California Active in Good Roads Work	
History of the Shock Absorber	
Contests and Their Advantages	
Sauce for the Gander	
Big Value in the Hudson "20"	
A Tiny Driver and Her Dog	Illustrated 1031
Winton Sales Boosters' Convention	
Index to Advertisers	1034
News Notes	
Incorporations	
Automobile Calendar	
2 2 4 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

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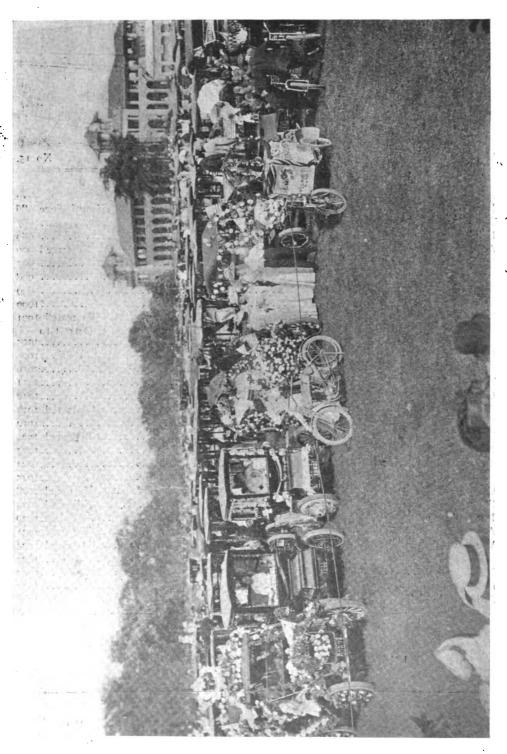
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THE AUTOMOBILE USERS' WEEKLY

Vol. XVIII.

NEW YORK, JULY 17, 1909.

No. 15.

TOPICS

Just when it was supposed that everybody was in favor of a road worthy of the name between New York and Atlanta, Ga., there

comes a note, loud and discordant, affirming that such a road, if built, would be used almost exclusively by "them automobile fellers," it had better not be constructed at all. Naturally, this opposing note comes from the farmers—Georgia farmers at that. Farmers' Union Local of Hart County, Ga., sounds the tocsin of alarm in a resolution which reads thusly: "Whereas, There is a movement on foot to build a public thoroughfare from the city of Atlanta to New York, at the expense of the respective counties, and said highway to be used almost solely by our friends, 'the automobilists,' therefore, be it Resolved, That we, as citizens of Hart County, do condemn such action by our public officials, and respectfully ask that our honorable county commissioner, Mr. S. H. White, use his influence against the building of any such highway through our county, and also the erection of the proposed steel bridge across the Savannah River, and that he use his best efforts to equip all other such roads as are needed by the citizens of our county."

The Wrights had a worse trial last week than they did when a lot of Congressmen swooped down upon them a few weeks ago. Regarding this second visitation, it is related that the famous aviators went about their work calmly and efficiently until the women visitors arrived. Then they lost their nerve and were ready to run for it. This is one indication of their absorption in their chosen life work. Once aviation problems are completely solved, the Wrights may have time to look about them a bit.

Once more residents of Bar Harbor are up in arms against the proposal to admit automobiles to the streets and roads of Mount Desert Island. One can't help thinking of Canute and his pretended effort to sweep back the incoming tide; or, perhaps Mrs. Partington's effort with her famous broom would be a better simile. One thing is certain—the tide of automobilism may be resisted

for a while, but eventually it will sweep over all barriers erected against it. Bar Harbor might as well prepare for the evil day.

New York is to have its annual season of twenty-four hour racing. We have become so accustomed to this sort of thing that we would be somewhat at a loss if we were deprived of it.

Once more the air is full of rumors of mergers of automobile concerns. Midsummer is a good time for the promulgation of such reports. Factories are in the between-hay-and-grass period, and there is plenty of time to indulge in more or less idle talk. Merging is the last thing that the heads of some of the concerns mentioned in these rumors are thinking about. What occupies their attention is how to turn out enough cars to supply the demand.

"Those miserable Tennessee roads," is the way the highways of "Old Hickory's" State are referred to. Truly, motor vehicles are the searchlights which show up deficiencies like these.

President Taft's well-known predilection for automobiles has led to his being invited to attend the automobile carnival at Lowell, Mass., early in September. Lowell is not very far from Beverly, the summer capital, and it may be that this proximity will have a bearing on the acceptance or declination of the invitation.

It is charged that New York City pays more for repairs and supplies, plus chauffeurs' wages, than it did when it purchased the cars—and the purchase price was no inconsiderable sum, totaling, it is claimed. \$550,000. These charges are made by the newly formed Democratic Union, which is out to fight extravagance in municipal affairs. If it can prove this, there is evidently plenty of room for the application of a broom that will sweep clean.

Joy riding in the cars owned by the City of New York has escaped the ban which the Aldermen sought to place upon it. It was proposed to mark, by signs or distinctive colors, the municipal automobiles so that they would be readily distinguishable at all times. This was expected to have a deterrent effect upon their promiscuous and unauthorized use by the families and friends of officials.

Milwaukee's fire chief is to speak at the annual convention of the Wisconsin Paid Firemen's Association. His subject is, "Are Auto Fire Apparatus a Success." Chief Clancy will argue in the affirmative and he knows whereof he speaks, as he has used a car for some little time.

Red-visaged war is raging between the independent and the corporation cabmen of New York. The strife is merely one phase of the irreconcilable conflict between the motor-driven and the horse-drawn type of vehicles.

Tire prices are to soar, and that almost immediately. This is the pleasant news that was made public last week, after being an open secret for some little time. The reason is the great advance in the price of crude rubber. Here is one commodity that does not need a protective tariff. It would be bad for motorists it it came under the category of "infant industries."

Brighton Beach to Be Scene of 24-Hour Racing

With reports coming in about motor-dromes being constructed throughout the country, motorists in and around New York, the largest automobile center in the United States, were beginning to wonder where they stood in the automobile racing game. The metropolis is not to be outdone in automobile sports, however, and, as a result of active work on the part of a number of men prominent in automobile circles in New York, the hopes of the automobile enthusiasts in that city are about to be realized.

After negotiations lasting some time, the Motor Racing Association, an organization composed of men interested in the automobile industry in New York, and formed last year for the purpose of running two twenty-four hour meets, completed arrangements on July 8 with the owners of the Brighton Beach race track, whereby the seaside course will be turned into a motor-drome.

The day after the signing of the lease of the track, work was commenced restoring and putting it into condition for automobile contests. Work had been started dividing the track into building lots, but this damage will be repaired, the curves banked, a grand stand erect ed in place of the one that was destroyed and a general overhauling will put the track in shape for conducting a series of automobile meets on broader lines than any heretofore attempted in this country.

The opening meet will be held on Friday and Saturday, July 30 and 31. The feature of this meet will be a twenty-four hour race limited to sixteen of the best known American and European cars.

The racing will be started at halfpast one o'clock in the afternoon of Friday, July 30, and will be continued almost without cessation up to the start of the twenty-four hour event. The full programme is as follows:

Event No. 1.—Fifty miles; open to cars of A. A. Class 5; price \$851 to \$1,250; entry fee, \$15; first prize, \$75; second prize, \$50; third prize, \$25 cash or plate).

Event No. 2.—Five miles, free-for-all; entry fee, \$15; first prize, \$100 (cash or plate).

Event No. 3.—Mile time trials, free-forall; first prize, \$50 (cash or plate).

Event No. 4—Brighton Motor Marathan, 100 miles; open to cars of A. A. A. Class 4; price \$1,251 to \$2,000, inclusive; entry fee, \$25; first prize, \$100; second prize, \$60; third prize, 40 (cash or plate).

Event No. 5.—Twenty-four hour race (restricted to sixteen entries); open to all stock cars (A. A. A. definition), selling at \$2,500 or over; entry fee, \$500, including paddock charges. Prizes for twenty-four hour race—First prize, \$1,000; second prize, \$500; third prize, \$300; fourth prize, \$200; fifth prize, \$100.

A. B. Cordner, of the Cordner Motor Car Company, will have direct control of the race meets, as chairman of the Race Committee of the Motor Racing Association. He will be assisted by T. F. Moore, organizer of the Briarcliff trophy road race and the New York to Seattle contest for the M. Robert Guggenheim trophy. E. R. Hollander, of the Fiat Automobile Company, chairman of Technical Committee, will prepare the programme for each race meet.

Arrangements are nearing completion whereby express trains on the Brooklyn Rapid Transit will be run from New York direct to the track.

The men who comprise the Motor Racing Association are as follows: C. F. Wyckoff (Stearns), A. B. Cordner (Acme), H. A. Lozier (Lozier), E. R. Hollander (Fiat), Paul Lacroix (Renault), W. B. Hurlburt (Thomas), H. S. Houpt (Herreshoff), W. C. Allen (De Dietrich and Allen-Kingston), C. A. Singer (Palmer-Singer), Walter Sykes (Zust), and Carl Page (Chalmers-Detroit).

A. A. A. Tourists Start after Doing Detroit Thoroughly

Thirty cars were sent away from Detroit Monday morning, July 12, on the first day's journey of the 1909 A. A. A. tour, after several days of preparation, in which the Michigan city fairly outdone itself in the way of extending hospitality. The starters and the story of the tour day by day appear in the following pages, reported by AUTOMOBILE TOPICS' correspondent en route:

In previous Glidden tours the cars were sent away every morning in the order of the numbers they bore in the tour, but this year Chairman Hower introduced an innovation by starting the cars in the order their entries were received by the A. A. A. This order was as follows:

100, C. H. Vandervoort (Moline). **101, J. A. Wicke (Moline). **102, W. S. Gregory (Moline). *151 Walter A. Woods (American Simplex). **103 Dwight B. Huss (Brush). **10 F. A. Trinkle (Brush). * 6 E. G. Gager (Maxwell). * 11 Gus G. Buse (Thomas). **108 John S. Williams (Pierce). * 8 Forbes S. Dey (Pierce).
* 9 Walter F. Winchester (Pierce). **109 Charles Schofield (Pierce). * 4 Frank F. Wing (Marmon). * 5 Howard C. Marmon (Marmon). *, 2 Harry Hammond (Premier). **105 John. Mackesky (Chalmers-Detrolt). * '3 Wm. Bolger (Chalmers-Detroit). *** 52 Jean Bemb (Chalmers-Detroit). - ,* 12 E. O. Hayes (Midland).

* 14 H. N. Searles (White),

**110, Frank Goodwin (McIntyre),

* Glidden trophy contestants. ** Hower
trophy confestants. *** Detroit trophy
contestants.

***, 53 Cliff Waltman (Premier).

7 O. P. Bernhart (Jewell).

- **106 Frank Steinman (Hupmobile).

**114 John C. Moore (Lexington).

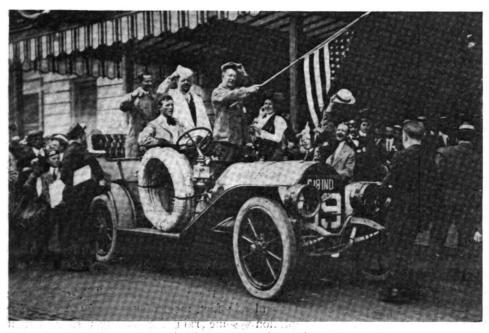
**112 J. Snydet (Mason).

KALAMAZOO, Mich., July 12.—The tour got away from Detroit Monday morning with due eclat. The cannons could not have boomed louder had the drivers been astride of comets, off to be gone a thousand years. Shaving oufits, chewing gum, vacuum bottles, and hand grease were among the souvenirs showered upon the departing travelers. Everyone of the thirty entrants got away.

The first day was naturally made an easy one, only 142.3 miles, to Kalamazoo being scheduled, but the tourists arrived at the Burdick House in that place a tired and dust covered bunch. The roads, as a rule, left much to be desired, abounding in long stretches of soft sand which told on an up grade Between Jackson and Battle Creek the best stretch of the day was met. There has been no rain hereabouts for weeks and the dust could not have been worse, making fast running impossible when the contestants were closely bunched.

Nearly everyone showed great interest in the autoists, many elderly women waving their hands as the entrants sped by. Some children were ringing bells or tooting horns by way of salutation. Nowhere was the reception warmer than in passing the Wayne County Insane Asylum. "It's you motorists that are insane, not us," said one of the harmless cases on the front lawn.

In Ypsilanti, came a greeting from the young women pupils at the State Normal School. Ann Arbor was the rext important point, but it took Jackson to rise to the situation, partly because automobiles are manufactured there. The travelers couldn't buy a thing in Jackson. Gasolene, oil, and refreshments, liquid and solid, were dispensed with an open hand—also on the jump, for there was no control



CHAIRMAN HOWER BIDS EVERYBODY GOODBY

there. Even the cops had on badges reading: "Reception Committee."
"There's no speed limit for you folk,"

said the first patrolman met at the outskirts.

Other important points en route were



A DETROIT CROWD WATCHES THE START



WHERE THE TOURISTS WILL GO

Albion, Marshall and Battle Creek, the breakfast table of the nation. Some of the village people were forced to lav the dust with their lawn hose, so they could see the passing motorists, and then could not withstand the temptation to give the tourists a sprinkling with the aforesaid hose. One of the press cars had three spasms of tire troubles. Lut luckily it was a non-contestant. The penalties imposed were I point on the Glidden tour Chalmers-Detroit No. 3 for repairing a broken fender iron, 20 points on the high-wheel McIntyre for tardiness, and 6.8 points on the Brush No. 105, both contesting for the Hower trophy, for materials and labor in bushing a broken connecting dod.

CHICAGO, July 13.—The origin of man and his certainty of being ultimately resolved into his native element—dust—was brought forcibly to mind to-day. The memory of the oldest motorist finds difficulty in going back to a dustier day that that experienced on the 174 miles run from Kalamazoo to Chicago. It was everywhere, penetrating the most cunningly devised barriers erected against it and covering cars and passengers in a fine cloud that sifted into every nook and cranny with a persistence worthy of a better cause. This

visitation and the very indifferent roads combined to make a day that was not all pleasure.

Fine weather prevailed, of course; in fact, most of the tourists would like some rain for variety's sake, but it seems likely to be denied them. start from Kalamazoo was made at 7 A. M. and by 4 o'clock in the afternoon the last of the thirty cars had checked in at Chicago. There was an absence of the sandy roads that marked the first day's journey, but the bumpy going that succeeded it was not very much better. After crossing the Michigan line matters improved, but as there is considerable construction work being done, progress was tedious, and at times slow. Nevertheless, a good average pace was maintained, and there were no lag-

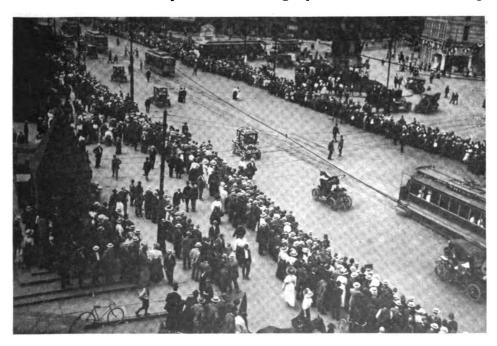
The countryside was out to watch the tourists pass and the same hearty welcome noticeable on Monday was given. Decatur, Mich., showed a particularly kind spirit. The town had one sign over the road, "Decatur hopes you win," and another, "No Glencoe here," referring to Chicago's infamous suburb. The friendly spirit shown by everyone toward the tourists on the first two days' runs plainly demonstrates how public attitude is changing as to motor-



PARADE OF THE DECORATED CARS

ists. The police, acting unquestionably under town and city government instructions, were kindness personified Farmers' sons at several points have

voluntarily posted themselves with flags at road forks where the confetti trail had been blown away, to signal drivers to right path. One man stacked a large



SOME OF THE SPECTATORS WHO VIEWED THE PARADE

pile of stones across a pathway near his home, lest the Gliddenites take the wrong trail.

At South Bend, the home of the big Studebaker works, the tourists were tossed lunches in boxes and bottles of liquid refreshments. Paw Paw, a vine district, varied matters by providing grape juice.

Chicago motorists met the visitors in the parkway. The Auditorium Annex was reached by running close to the lake in Michigan Avenue, the city's motor of the fender iron which was penalized a point yesterday. The wire used to repair it so loosened that it had to be rewound. The Brush, No. 103, was penalized four-tenths of a point for tightening a cone.

At 10 o'clock to-night two cars had not arrived, the McIntyre high wheeler, No. 110, and the Brush, No. 104, both of which were penalized yesterday.

MADISON, Wis., July 14.—With the third day's run came the first with-



CHAIRMAN HOWER (WITH CAP AND ARM RIBBON) AND HIS RIGHT HAND MEN

mart. In the last ten miles about a dozen cars had to replace tires because of picking up long nails that had fallen out of the planks used in temporary street work, but no penalties were attached except loss of time. Everybody was so far ahead of the schedule that little damage was done, however. The A. A. A. contestants attended a Dutch luncheon in the evening, given by the Chicago Motor Club and the Chicago Auto Trade Association.

Two penalizations were announced. Four-tenths of one point was set against the Chalmers-Detroit No. 3 on account

drawal. The unfortunate was the Mc-Intyre buggy-type entrant, which went into a ditch and was so much shaken up that it was obliged to withdraw—temporarily, at least. With two other cars penalized, in the Hówer trophy contest, there are eleven clean score cars still in the running.

The day's run of 175.3 miles was a real pleasure jaunt despite the fact that it was the longest of the three days' travels. Although the tourists were annoyed by the dust it was not as bad in Wisconsin as it was in Michigan, Indiana and Illinois.

Starting from Chicago, the cars were run for forty miles over the fine Sheridan Boulevard, passing through the beautiful residential sections of Evanston, Northwestern Chicago, Glencoe and Lake Forest. The drivers were not taking chances with fickle Illinois officials, however, and a conservative speed was maintained by them until the speed trapzone was passed. Going through Glen-

kee the streets were far from being unpopulated.

The members of the Milwaukee Motor Club were out in force, and besides providing lunch, gave the contestants much of the lubrication that made their city famous.

Upon leaving the city many of the cars contained cases of the anti-dust fluid.



DAI'LEWIS AND HIS E-M-F, CONFETTI CAR

coe, famous for its shooting constables, the only greeting the tourists got from officials was a sharp look.

After leaving the Sheridan Boulevard, the condition of the road, while not excellent, was fairly good in spots, until Milwaukee was reached. Elijan Dowie's followers deserted Zion City streets when the cars approached, but when the travelers arrived in Milwau-

The run from Milwaukee to the State capital was very picturesque. Oconomowoe, Watertown, and Waterloo were on the route, and in all these places the dusty men looked longingly toward the open lakes.

Showers had laid the dust and the roads were in good condition, enabling the cars to make good time. All the machines, with the exception of the

McIntyre, arrived in Madison before their schedule time had elapsed and were parked in front of the State Capitol building.

The McIntyre car was eliminated from the Hower trophy contest, as the result of an accident near Racine, Wis. As Goodwin, the driver, was piloting the car along the Interurban Railroad tracks, one of the tires got caught in a switch, throwing the car down an embankment. The driver and observer were uninjured, but the car was pretty well broken up, and it will be several days before it will be able to join the tour as a non-contestant.

The Brush runabout, No. 104, received a heavy blow in the 172 points marked against it for tardiness, to which was added 7.3 for labor and material. The perfect scores for the Glidden trophy up to Wednesday night comprised the Midland, White, Maxwell, Glide, Thomas, two Pierce-Arrows, two Marmons and two Premiers.

In all forty cars left Detroit on the tour. Dai H. Lewis, in a Studebaker E-M-F., driver by George Meininger, and "Mort" Reeves in a car of the same make left with the confetti bags at 7:30 A. M. Chairman Hower, Alfred Reeves and Charles J. Glidden left twenty minutes before 10 o'clock in a Rremier. After the contestants had gone the following press cars started: Chalmers-Detroit, Thomas, Maxwell and two Studebakers. Starter E. L. Ferguson was the last to leave, going in an Acme. After he had gone Detroit went about its usual business, for its share in the 1909 A. A. A. tour was completed.

DETROIT, July 11.—Charlie Glidden—his tour, or is it Frankie Hower's—was launched last Friday night by a dinner to the three A's officials and directors at the Hotel Pontchartrain. There are two peculiar things about that hos-

telry. One is the name, which can be spelled seventeen different ways without violating its phonetic value. The other is the method of getting drinking water in the lobby. A lot of tourists didn't get in until Sunday, and they, thirsty, were told to go into the drug store connecting. After hesitating they went in and began to wink, New York style. But it was unnecessary. There really was water in the druggery if your arm was long enough to reach in under the stone slab where they wash the soda glasses.

The banquet to the A three times was like a short horse soon curried. In fact. it can be dismissed without currying, thereby saving wear on the scraper. The next morning the automobile manufacturers sent around their carriages requesting the pleasure of the visitors' presence at factory receptions. When guests returned their trousers pockets were so full of souvenirs they were bagging at the knee. The Brush people, for instance, gave away shaving brushes (no pun intended) along with little mirrors that could be hung up on trees or elsewhere beyond the limits of civilization and barber shops, where the trail was blazed in the depths of spring mud.

After the guests had collected enough bric-a-brac to decorate several cozey corners, they shifted their attention to the afternoon street parade of motor-cycles and automobiles. The first cycling prize went to a "lady dressed in purple and green. Name not known," to quote the *Free Press*.

Of course, none of the Glidden contestants entered in the parade, which actually contained more than 1,000 cars and that not by press agents' count, either. Natural flowers made up most of the fancy designs and many of the entries were so pretty that the owners ran them around the principal streets until the populace went to bed. After

the parade there was a ball game at Belle Isle, but notwithstanding the interest of the motorists in ball bearings, most of them were too tired to go there. After that the executive board of the A. A. A. was entertained by the Automobile Club of Detroit. In the evening the Maxwell-Briscoe band, from Indiana, and glad of it, occupied the center of the stage in the campus. There was to have been an illumination, too, but that was finally thought unnecessary because of the cannonading conducted by the rival tire agents.

Sunday, instead of going to church the motorists took a sailing trip on the steamer City of Cleveland, which is equipped with elevators, mail chutes, fire and water escapes and a convention hall. A little later they are going to cut out a few posts and build a wellbanked elliptical automobile mile speedway on the upper deck. When the Cleveland pulled out, one of the city fire boats appeared in the river hard by and did its stunt. It was the only cold water thrown by Detroiters on automobile schemes through the week. yond Lake St. Clair, the flats canal was traversed. After going a few miles the boat was forced to throw in the reverse speed, as she was too big to turn around. About that time eatables were spread out below decks and several kegs of beer were tapped, the mayor, among others, loaning his beer pump. In that way many visitors got as much exercise as if they had punctured a couple of tires on a lonely country road.

Some Queer Things About Municipal Autos

Preliminary to the fall mayoralty campaign, which New York City is about to face, one political body, the Democratic Union, has turned its battery of rapid fire guns on the municipal automobiles. It set on foot an investigation of the cost to the city of the automobiles used in the various municipal departments and their use for other purposes than only business.

In a statement issued, the union declares that three Tammany district leaders, one of them an Alderman, have organized a syndicate for the purpose of selling second-hand machines for new ones to the city at large profit to themselves.

The union says the city now owns 476 automobiles, which cost \$550,000, exclusive of an annual repair bill of \$125,000 and \$500,000 for supplies and chauffeurs. It states that Street Cleaning Commissioner Edwards has three cars in his department, and the Fire Department six cars, one of which cost \$3,500 and another \$6,250, on which

\$1,200 has been spent in repairs since its purchase in 1906. Continuing, the statement says:

"As there is no actual use for autos in several of the city departments the Commissioner of Docks, who travels by boat, has two cars which cost \$15,775 each, it has been necessary to find some uses for them, and they are now generally employed on joy rides, moonlight jaunts, or trips to and from the races. In all the city is now spending more than \$1,000,000 a year for the operation, maintenance, and repairs of autos, most of them seldom used for public purposes.

Rochester Motorists in the Lake Region

The Automobile Club of Rochester, N. Y., has arranged to hold its first annual tour, starting from the Hotel Seneca, on Thursday, July 22. The route will take in the beautiful lake region of Central New York, and is now being laid out by Secretary Van Tuyle, who started July 8 on a pathfinding trip.

Drive 17,003 Miles Without Costing a Cent for Upkeep

Driving a Winton Six limousine car 17,003 miles without incurring a single cent of upkeep expense, has won \$1,000 , for G. W. Butler, chauffeur for J. E. Clenny, of Chicago. This money represents first prize in the second annual \$2,500 upkeep contest for Winton Six chauffeurs. The contest ended June 30, and the judges met in Cleveland, July 13, to decide the winners. Chauffeurs were required to file monthly reports, attested by their employers, and at the end of the contest both chauffeurs and employers were asked for sworn affidavits.

Butler's record is all the more remarkable because his car carried a limousine body, and also because it was a prize winner in the first annual contest, when Butler drove it 5,155 miles in 3.2 months without upkeep expense.

Second prize was awarded to John J. Boyce, of Atlantic City, who drove Isaac Bachrach's Winton Six 11,000 miles on an upkeep expense of 30 cents.

Second prize went to W. L. Losee, of Verona, N. J., chauffeur for G. W. Frost. Losee's record of 10,595 miles without expense, brought the total mileage for the first three prize winners to 38,598 miles on a total upkeep expense of 30 cents.

The ten prize winning cars were driven a total of 118,503 miles, more than four times the distance around the globe Their average distance per month was 1,500 miles or 50 miles per day. The total upkeep expense of \$127.30, made the average upkeep expense per car for each 1,000 miles \$1.07.

The judges were E. E. Schwarzkopf, publisher of AUTOMOBILE TOPICS; John John W. Raper, of the Cleveland Press, St. Clair Couzens, of the Cleveland News, and A. C. Faeh, of the Cleveland Town Topics. Following is a summary of the awards:

First prize, \$1,000.—Won by G. W. Butler, chauffeur for J. E. Clenny, Chicago; distance, 17,003 miles; upkeep expense.

Second Prize, \$500.—Won by John J. Boyce, chauffeur for Isaac Bacharach, Atlantic City, N. J.; distance, 11,000 miles; upkeep expense. 30 cents.

Third Prize, \$250.—Won by W. L. Losee, chauffeur for G. W. Frost, Verona, N. J.; distance 10,595 miles; upkeep expense, none.

Fourth Prize, \$150.—Won by J. Walter Tracy, chauffeur for T. N. Barnsdale. Pittsburg, Pa.; distance, 15.669 miles; upkeep expense, \$31.15.

Fifth Prize, \$100.—Won by William Richards, chauffeur for William Burnham, New York; distance. 8,702 miles; upkeep expense, none.

Eighth Prize, \$100.—Won by John Wilson, chauffeur for W. B. Martin, Cleveland; distance, 10.726 miles; upkeep expense, \$7.50.

Ninth Prize, \$100.—Won by Miles Fellers, chauffeur for W. B. McAllister, Cleveland: distance, 10,788 miles; upkeep expense, \$26.55.

Tenth Prize, \$100.—Won by Harry Rosander, chauffeur for H. W. Mallen. Chicago; distance, 7,572 miles; upkeep expense, \$1.50.

Summary.—Total prizes, \$2 500; total mileage, 118.503 miles; average mileage per car per month, 1.500 miles; total upkeep expense, \$127.30; average upkeep expense per car per 1,000 miles, \$1.07.

No Distinguishing Marks on City Cars

Acting Mayor McGowan, of New York, vetoed on July 13 the ordinance passed by the Board of Aldermen requiring that city automobiles shall be conspicuously marked or colored to distinguish them from private machines.

The purpose of the ordinance was to prevent the use of the automobiles by city officials for "joy rides." The acting mayor says that the ordinance would tend to interfere with the work of the Police and Health departments and that it conveys an implied censure on the heads of the municipal departments.

Tire Prices Go Up

On July 15 the expected increase of from 15 to 20 per cent. in the cost of automobile tires became effective la many places along Automobile Row, New York City. The first the public knew of the increase was when several concerns along Broadway posted notices in their windows telling of the advance.

These notices were posted several days before the 15th, and resulted in a number of concerns placing large orders before the price went up.

While some of the tire concerns had their new price lists go into effect on July 15, others will wait for awhile before they announce their new scale of prices. Reports had it at first that the increase would be from 15 to 25 per cent., but most of the managers of concerns along Broadway declare the raise will be around 10 or 15 per cent., with the maximum at 20.

The managers of the New York branches of the Fisk Rubber Company and the Firestone Tire and Rubber Company declared a raise of 15 per cent. on July 15, while the Diamond Rubber Company declared an increase of from 15 to 20 per cent on the old prices the same day. It was said that the Hartford Rubber Company would also raise the price of their product on July 19, but the amount of their raise could not be ascertained.

Marcus Allen, of the Empire Tire Company, announced that a raise would also be made by his concern on July 20, but he could not tell just how much the increase would be. The Michelin Tire Company is expected to make a raise of 15 per cent. on July 20, while J. M. Gilbert, of the Continental Caoutchouc Company, has sent a circular letter to all realers and agents of Continental tires throughout the country notifying would be increased after July 26. Mr.

wiuld be increased after July 26. Mr Gilbert did not feet inclined to say what raise his concern would make.

Within the last few months the price of crude rubber has practically doubled and the tire manufacturers declare that this, with the increased cost of labor, is the cause of the prices being increased. Several persons along Automobile Row connected with the tire industry declare that the tire makers have been losing money for the last year. The tire concerns have also been giving large commissions to jobbers, thus cutting their natural profits down to a minimum.

The general rise is the result of several secret meetings held by the tire manufacturers in the West. Nearly all of the meetings were held in Cleveland and Akron, O., and the leading men in the industry attended.

Fine Steamers for Lake Service

The nine steamers of the D. & C. Lake Lines are the largest, speediest and most luxurious on the Great Lakes. They operate regular and punctual service between Cleveland, Detroit, Buffalo, Toledo, Mackinac and all lake ports. Send for the illustrated pamphlet that tells all about the steamers, the service and the places to go. Enclose two-cent stamp to D. & C. Navigation Co., 8 Wayne Street, Detroit, Mich.

Troy Ready to Distribute Maps

The road map showing the highways leading to Troy, N. Y., prepared for the accommodation of automobilists by the Chamber of Commerce of Troy, is now ready. The members of the Chamber of Commerce will supply hotels, garages and business houses electrotypes of the map, and in this way hope to distribute it broadcast.

Denver's Fourth of July Road Race

Independence Day was strikingly celebrated by motorists of Denver, Colo., and vicinity, by the running of one of the biggest automobile road races held in that section of the country. To add to the enthusiasm, the 290 mile race over the Brighton course, under the auspices of the Denver Automobile Club, was won by a car made in Colorado and driven by a native of that State.

Easton McMillan was the successful driver, he having driven a 40 hp. Coburn twenty times around the 14½-mile circuit 2 minutes and 28 seconds faster than his nearest competitor, Harold S. Brinker in a 32 hp. Moon. McMillan's time for the entire distance was 7 hours 26 minutes 24 4-5 seconds, fully an hour slower than the time made by the winning car of the 1908 event, this being due to adverse weather conditions and muddy roads. The Chalmers-Detroit "Blue Bird," driven by William Knipper and Joseph Matson, finished the race third in 7.38.48.

The race was one of the closest and most exciting events seen around the "Mile High City" in some time. Up

to the referee's announcement at the finish the name of the winner was in doubt. At the half-way mark McMillan was running in third position, with Brinker leading and Knipper acting as runner-up. The Colorado car was gradually overhauling the leaders, but on the start of the final circuit, the Moon car was seven minutes in advance of the Coburn and the spectators had given up all hopes of McMillan being returned a winner.

On the last lap, however, the Moon car developed engine trouble and the Coburn gained on it. The Moon was the first car to cross the finish line and was thought by the spectators to have won the race. It had started four minutes in advance of the car driven by McMillan and when the elapsed times of the two cars were considered it was seen that the latter had won the event.

The race was held under the most adverse weather and road conditions and when the seven starters came to the line at 9 o'clock the three day's rain had turned the roads into a sea of mud. In order to give the course time to dry up the start was postponed until 11 o'clock.

Nine Events for Richfield Springs Hill Climb

A program of nine events has been arranged for the hill-climbing contest which is to be held at Richfield Springs, N. Y., under A. A. A. rules, on July 31. S. B. Stevens will act as referee and T. J. Wetzel as clerk of the course. The hill to be climbed is 5,000 feet in length, up Mount Waitontha, and rises 600 to 700 feet.

The events are as follows:

Event No. I.—Open to gasolene stock cars selling from \$851 to and including \$1250.

Event No. 2.—Open to gasolene stock cars selling from \$1,251 to and including \$2000.

Event No. 3.—Open to gasolene stock

cars selling from \$2001 to and including

Event No. 4.—Open to gasolene stock cars selling from \$3001 to and including \$4000.

Event No. 5.—Open to four-cylinder gasolene stock cars selling for \$4000 or over.

Event No. 6.—Open to six-cylinder gasolene stock cars selling for \$3000 or over. Event No. 7.—Free for all. Open to cars of all types and motive power.

Event No. 8.—Open to gasolene stock chassis with piston displacement of 451 cubic inches and not to exceed 600. Minimum weight of car 2400 pounds.

Event No. 9.—Open to gasoline stock chassis with piston displacement of 231 cubic inches and not to exceed 330. Minimum weight of car 1800 pounds.



The Northward Trip of the Good Roads Scouts By PIONEER

The good roads movement inaugurated by the New York Herald and Atlanta Journal is acquiring momentum as the "scout car" sent out by these newspapers rolls up mileage. Several. weeks ago a brief description of the trip of the New York Herald's White Steamer from New York to Atlanta was given in these columns. After a week in the latter city, the car started northward, this time over what is known as the "capital-to-capital" route, via Elberton, Columbia, Raleigh, Richmond and Washington, as shown on the accompanying map. Although no official announcement has been made, it is understood that this route was found to be, at the present time, not nearly as good as the route via the Shenandoah Valley, Danville, Charlotte and Anderson, which the White covered on its trip southward.

As was anticipated by those who have had experience in southern touring, the 'capital-to-capital" route, being comparatively near the coast, leads through many miles of sandy, swampy country, with almost innumerable creeks which are not provided with bridges. But it was not all bad going by any means, and the scouts reported a number of localities where the roads were almost faultless.

Not in many years has the South been so stirred up as it is by this good roads The scouting trips of the White have awakend a spirit of emulation, so that each county is striving to excel its neighbor in good roads development, and an appeal has been made to local pride, the results of which will be far-reaching. The business men in the various cities are alive to the advantages which would result from having the "New York-Atlanta Highway" pass through their sections and, accordingly, each day the scouts learn of road improvements which were projected, and, in many instances, work was actually started while the White was on its way northward.

Foremost among the good roads ad-



AN EVER PRESENT SIGHT IN THE SOUTH-SNAPPED AT ATHENS, GA.

vocates of the South is Leonard Tufts, the owner of Pinehurst, the famous North Carolina resort. Mr. Tufts, when he heard of the plans of the good roads scouts, came down from his summer home in New Hampshire, hired 200 men and 100 teams and, in four and one-half days, constructed three miles of splendid road over which the White, with Mr. Tufts as a passenger, made an exhibition run at the rate of 50 miles an hour. Mr. Tufts is now devoting

all along the route gave evidence that they had awakened from their previous attitude of letting the roads go by default.

The arrival of the scouts in their White Steamer in the various towns was the "big story" of the day in the local newspapers. Between Atlanta and Washington, the scouts did not have a single hotel bill to pay. In some cases, the local chamber of commerce looked after this item, and in others, the scouts



BRIDGE BUILDING AT CAMDEN, S. C.

practically his entire attention, and is spending no small amount of money, in forwarding the good roads movement along the "capital-to-capital" route.

At many other points along the line special exertions were put forth to improve the roads in order that the scouts might form a favorable opinion of the "capital-to-capital" route. Bridges were built over creeks which never before could be crossed except by fording; stumps were cut out of the road; holes were filled in, and, in general, people

were the guests of the city. Every town, large or small, sent out a delegation to welcome the scouts, these delegations invariably including the mayor and other prominent citizens.

A fitting climax to the series of receptions and entertainments occurred at Washington, where President Taft received the scouts and expressed his appreciation of the work which they were doing. Furthermore, the President readily consented to pose for a picture with the scouts outside of the White House.



CROSSING THE BROAD SUSQUEHANNA AT HAVRE DE GRACE

As pointed out in a previous article, there was a latent good roads sentiment in the South before the New York Herald and Atlanta Journal embarked in their enterprise. But it needed just such a spectacular performance as the trips over the road between New York and

Atlanta to quicken and to crystallize the good roads sentiment. People in southern towns have hitherto been thoroughly satisfied with local road conditions if they had good roads extending a few miles from town in each direction. Now they are beginning to see that they can-



A TYPICAL SOUTHERN SCENE-NEAR ELBERTON



COMING INTO REDAN, GA.

not be satisfied with such a condition and are giving some attention to the condition of the roads from town to town. They can no longer look on a bad spot in the road with equanimity simply because it is five miles outside of town and no one ever goes out that far. They are beginning to realize the importance of having a good highway all the way to the next town. Last, but not least, their local pride has been aroused and they are not going to let it be published to the world that the roads in their county are far inferior to the roads in a rival county.

One of the concrete results of the trip of the good roads scouts has been to inaugurate a strong movement to build a good highway between Richmond and Washington. The leading citizens and commercial bodies of both Washington and Richmond have entered into hearty co-operation and it is a safe prediction that before another year has elapsed the road between the two cities will no longer be the disgrace to the Commonwealth of Virginia which it is to-day. The direct road between those cities is known as the Old Telegraph Road, and

was described by "Pioneer" in Auto-MOBILE TOPICS of April 24. The scouts heard such discouraging reports of the condition of the road that they essayed a longer route via Gordonsville and Warrenton, but it is doubtful if the condition of this road is enough better to compensate for its forty miles of extra length as compared with the Old Telegraph Road.

The scouts followed the direct road from Baltimore to Philadelphia, crossing the Susquehanna River on the ferry at Havre de Grace. A vast amount of misinformation exists regarding this road. A number of years ago this road was reported to be almost impassable, and this information has been so widely disseminated that most tourists going from Philadelphia to Baltimore take a long, indirect route via York and Westminster. As "Pathfinder" pointed out in the article above alluded to, no one need have any hesitation in going via the Havre de Grace route.

The good roads scouts ended their northward trip at New York on June 26, and were welcomed in behalf of the city by Acting-Mayor McGowan. Their

Automobile Topics Tour

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Model Y

SIX CYLINDER

FORTY HORSEPOWER

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Contacts are moulded solid into this Rubber Plate, no possible loose connections, bad contacts, trouble from dampness, or anything of this sort is possible. The Battery Cells are SUSPENDED from the Plate and do not rest on any surface where dampness can collect. Send for Bulletin T

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Do not forget that you can use old style binding post cells if, in an emergency, "screw tops" are not at hand.

Mention "Automobile Topics" when writing.

Loose Sheets of This and Previous Sections May be Obtained by Remitting Ten Cents for Each

1909 A. A. A. TOUR

Section 1—Detroit to Valparaiso

The route to be covered by the A. A. A: (Glidden) tourists during the next two weeks lies, for the most part, through a section which has been insufficiently reported up to this time. For this reason the different sections of the route are being published in Automobile Topics' touring supplements, the first section being given herewith. It takes the tourist from Detroit to Valparaiso, leading, for the most part, through Michigan, over roads that are very far from being the best. The details follow:

Leave the Pontchartrain Hotel and go west on Michigan Avenue; then straight ahead through Dearborn, Inkster, Eloise. Follow trolley through Wayne, Canton, and to

Ypsilanti (30 miles).

At fork keep right, and four blocks beyond turn left with trolley and follow same through Ann Arbor to Lima Center. Trolleys turn to right, but keep straight ahead and at cross-road go left. About one mile beyond turn right, and at next fork go left. Again left at next fork, and at another fork, shortly beyond, go right. Right at end of road and again right at fork beyond. Straight ahead to Grass Lake. At fork bear right and at fork, a mile and a half beyond Leoni, go right. Next fork go right and then straight to Jackson (75.3 miles).

At fork go right and then direct through Sandstone and Parma. Seven miles further, at fork, go right, and at Albion Hotel turn right and then left on Austin Street. Very sharp curve a mile beyond Cold Spring Park, and take first road to left. Right on Monroe Street and left on Main Street,

Marshall (105.2 miles).

Half circle park and follow trolleys through Ceresco, Postumville, Nicholls, Main Street, Battle Creek, and Urbandale. From Urbandale the Kalamazoo River is in sight most of the way to Kalamazoo, along roads through Level Park, Augusta, Galesburg, Comstock and to Burdick Hotel,

Kalamazoo (142.3 miles).

Leaving hotel go west on Main Street, and at fork go right. At next fork go right with trolley. Two miles after passing schoolhouse turn left at fork, and after going through cross-roads turn left and then straight through

Almena (155.8 miles).

After passing through cross-road and fork on right, take left curve. Through cross-road, and at another a mile beyond, turn right. At fork one mile distant go

left through Paw Paw. After crossing bridge turn left at fountain. At fork go right and at another fork two miles beyond, turn right. Direct, taking left curve to end of road, where turn right. Turn left, and at fork go right. End of road curve left to Decatur. At first fork go right and at next left. End of road turn left and then straight to

Dowagiac (187 miles).

End. of road turn right; end of road turn left, and then straight ahead to railroad, where curve sharp right through Pokagon to Sumnerville, where turn left at cross-roads. At fork keep left. Two miles beyond keep left over R. R. bridge. Bear right and at foot of grade turn left on N. Fourth Street. Right on Main Street, and one block beyond turn left on S. Third Street. Fork, keep left and then straight ahead for about ten miles, where at fork go right on Leeper Avenue, and then along on N. Michigan Street. Right on W. Washington Street and then right on N. Main Street,

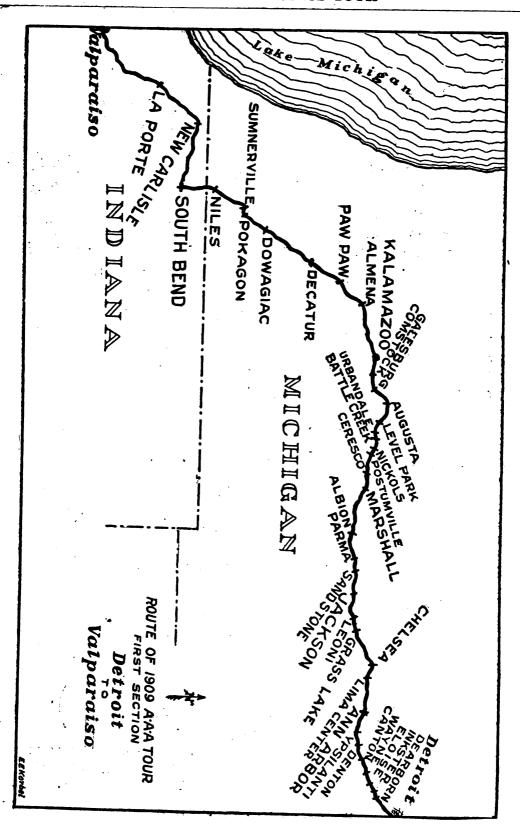
South Bend, Ind. (212.4 miles).

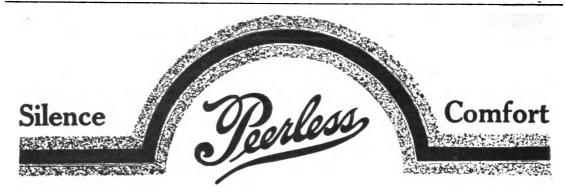
Turn left on W. La Salle Avenue, curving right on to Michigan Avenue. Straight ahead, and after leaving trolleys go right at fork. Straight through New Carlisle,

at fork. Straight through New Carlisle, and at fork three miles beyond, go left. Direct, passing a number of cross-roads, to

La Porte (239.3 miles).

Turn left on J Street, and at end of street turn right and go two blocks, where turn left. At cross-road, about half a mile beyond red brick schoolhouse, turn left, and then straight through Pin Hook. At cross-road, two miles beyond Pin Hook, turn left, and at next cross-road turn right. After crossing R. R. and going under R. R. bridge, bear left at first fork. Straight ahead on macadam going under R. R. bridge. Curve left over small iron bridge, then curve right, passing schoolhouse on right. At fork bear right, and at end of road turn right on East Street and then left on Main Street of Valparaiso (262.1 miles)'.





1910 Announcement

The clearest evidence of the perfection of Peerless construction is shown in the fact that for the past four years only minor changes have been made, each successive season's output being a carefully revised and refined edition of its predecessor.

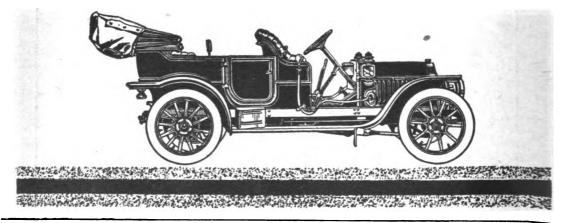
Peerless has never been a car of single features—its charm lies in its perfect unity mechanically, its rich simplicity of contour and appointments, its easy riding qualities and the degree to which noise has been eliminated.

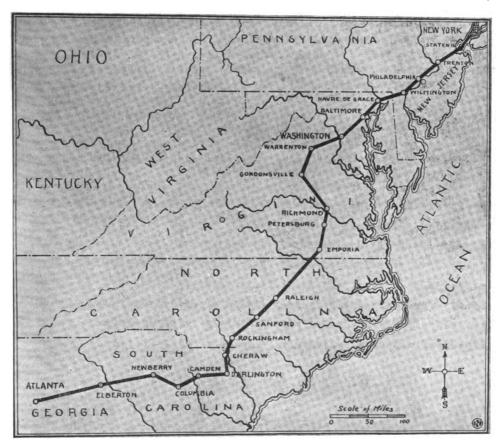
Models 27 and 28

Touring Cars, Limousines, Landaulets, Roadsters

Catalog E Describing the New Models New Ready

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ROUTE OF THE SCOUTS

work, however, is by no means conpleted, as there is still another route to be tried out—that by way of the Shenandoah Valley, Bristol, Tennessee and Chattanooga, and, at this writing, the New York Herald's White Steamer, with its scout passengers, is on its way to Atlanta by this route.

Delaware Retorts in Kind

The new Delaware law is now effective, and as a result visiting motorists from Pennsylvania, New Jersey and Maryland, who want to run their machines in Delaware, will have to provide themselves with Delaware license tags, according to the requirements of the new State law, which is now in effect. The Police Department of Wilmington, has been directed to enforce the law.

Under the act, visitors are accorded

the same privileges as their States grant to strangers, and as the neighboring States require local licenses the same rule will apply to their people when visiting Delaware.

Automobilists of Wilmington, Del., who have cause to use the Faulk Road are being subjected to grave danger by unknown persons, who during the night have been throwing fence rails or heavy timbers across the roads.

Condemnation of New York Toll Bridges Begun

Automobilists throughout New York State are much pleased over the report from Albany that the new State Highway Commission has begun work on the condemnation of toll bridges, on July 13.

The commission is proceeding with this work with the authority of the Legislature.

Resolutions adopted by the Board of Supervisors of Schenectady County for the abolition of the Freeman and Scotia toll bridge and one between the towns of Glenville and Schenectady, along with those adopted by the Board of Supervisors of St. Lawrence County, petitioning for the condemnation of a toll bridge across the Narrows at Black Lake, in the towns of Macomb and Morristown, were approved by the com-

mission in a report to the Attorney-General.

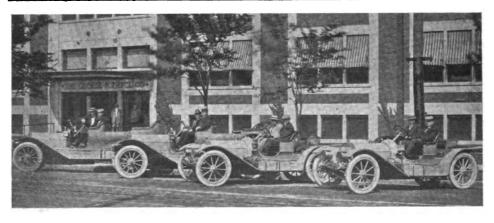
After certification by the State Highway Commission that public interest requires the abolition of a toll bridge, it is the duty of the Attorney General to apply to the court for the appointment of commissioners to appraise the value of the bridge and the franchise and the title thereof.

Fifty per cent. of the expense incurred in the condemnation and acquirement of a bridge is paid by the State, 35 per cent. by the county in which the bridge is located, and 15 per cent. by the town. After the acquisition of a toll bridge it must be maintained as a free bridge by the town within which it is situated and as a part of the highway system in the county.

Pittsburgh Club Gets Out Road Book

The Automobile Club of Pittsburg has just published a road book of 240 pages that will be of great assistance to motorists touring the Keystone State. The book contains much information valuable to tourists. It embraces 218 routes, taking in practically every place of interest in western Pennsylvania, as well as directions for short runs.

The book contains several maps of Pitsburg, as well as key maps relating to the routes described. The history of the Philadelphia-Pittsburg turnpike and of the National Highway is told. The complete text of the Pennsylvania motor vehicle laws for 1909, as well as extracts from the motor laws of other States, can also be found in the book.



PIERCE-ARROWS LEAVING FACTORY TO START IN GLIDDEN TOUR

The Goods Start on a Long Trip

R. C. Good, a leather manufacturer of Hackettstown, N. J., started out last week with his whole family for an unique 3,000-mile trip in two large Locomobile touring cars. The party is headed towards the mountains of Kentucky, principally for the purpose of permitting Mr. Good to visit his boyhood home in a remote village some distance from Louisville, which he has not seen for thirty years. This motor enthusiast, who has already toured thousands of miles in his 40 hp. Locomobile, recently made his daughter, Miss Bertha Good, a present of a 30 hp. model of this make, and she will endeavor to drive it the entire scheduled distance.

Her father will pilot the big car, with his son as an alternate, Mrs. Good and the rest of the family being content to go as passengers.

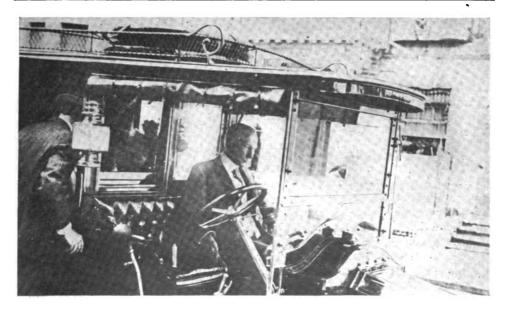
The tour mapped out includes Philadelphia, Gettysburg and the war country, Pittsburg and various cities of Ohio, and thence down into the blue grass of Kentucky. After spending a few weeks at the old homestead, the party will proceed up through Ohio and Indiana and over to the shore of Lake Erie as far as Buffalo. Following this, the family will proceed to New England, visiting the glorious White Mountain country and the Berkshires, returning probably not before September.

Clevelanders Visit New England

A party of Cleveland people have just completed a most enjoyable trip from the Ohio town to New England pleasure resorts. The party, consisting of Mr. and Mrs. John Blakeslee, Mr. and Mrs. Fred C. Gates and Mr. and Mrs. Henry

Dreher are all driving Winton Sixes.

Writing from Portsmouth on July 2, Mr. Blakeslee said: "We rounded our first 1,000 miles to-day, and haven't touched my Winton Six motor since we started."

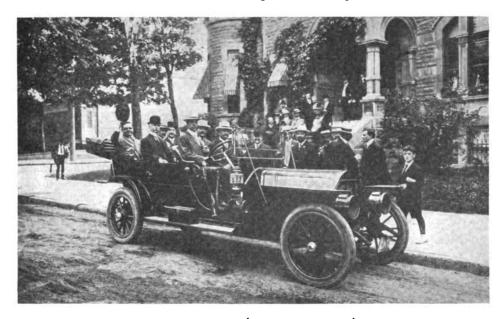


JOHN D. ROCKEFELLER IN HIS RENAULT CAR

Canadian Premier is Presented with a Car

That Canadians think well of Stevens-Duryea cars is evidenced by the fact that Sir Lomer Gouin, Premier of the Province of Quebec, was recently presented with a Model Y seven-passenger car of this make, by a number of his friends, as a mark of their esteem.

surprise to this dignitary. It took place at the St. Denis Club, Montreal, the presentation address being made by Alderman Lavaller on behalf of his colleagues. At the conclusion of the ceremonies the Premier was taken for his initiatory ride in the car and expressed much pleasure with its smooth-



SIR LOUIS GOUIN (RAISING HIS HAT)

The accompanying illustration shows the Premier (raising his hat) seated in the tonneau of the car. The presentation ceremony came as somewhat of a

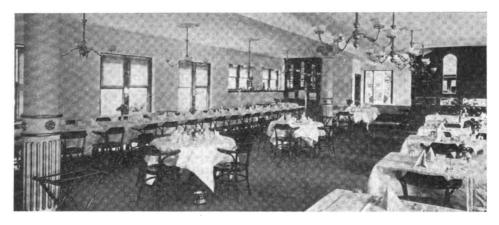
running qualities, and the easy manner in which it was able to climb some of the very steepest of Montreal's hills.

An Ideal Resort for Motorists

One result of the general use of the automobile is the revival of the old-fashioned inn—with modern improvements. The tendency of the city man to get away, especially during the heated season, from bricks and mortar becomes more pronounced every year, and his incursions naturally lead him to pleasant places, far removed from the din and turmoil of the city, where he can enjoy

himself, breathe pure air and partake of viands of the choicest and most seasonable kind. The latter desideratum is one that is coming to be more and more insisted upon, and if mine host can truthfully boast of a cuisine that is something out of the ordinary he has an advantage that means much to him.

At Grand View-on-the-Hudson the Hotel Forest Castle was opened a week



THE DINING-ROOM

or two ago to cater to motorists who seek the pleasures referred to above. It is charmingly situated on the west bank of the Hudson, near Piermont, and, unlike many hotels, is solidly, even massively, built. Located on high ground, 600 feet above the Hudson, it is delightfully cool and commands a magnificent view. About 100 guests were entertained at the opening.

Forest Castle is twenty-five miles from New York and is reached by the Northern R. R. of N. J. By automo-

bile the route is as follows:

City Hall to West Shore ferry, Desbrosses Street to Weehawken. Take Hunson County Boulevard to Ridge-field to Leonia to Englewood, Tenafly, Closter, Sparkill to Grand View. Or, cross West Shore ferry, West 42d Street, to Weehawken, to Grand View. Or, Broadway on Fifth Avenue through Central Park to 125th Street, then west to 130th Street (Fort Lee ferry) to Fort Lee, Leonia, Englewood to Grand View.



HOTEL FOREST CASTLE, SHOWING SUBSTANTIAL CONSTRUCTION

Three Causes of Tire Troubles

It is gradually being admitted that tire troubles usually occur as a result of one of three things. The first of these is the failure to buy good tires—something that no self-respecting owner should do; the second is the use of tires too small to carry the load; and the third is abuse of the tire. Taking these three shortcomings as a text, one of the experts of the Fisk Rubber Company has diagnosed these three evils and comments on them in the following manner:

Tire trouble can be classed roughly in three divisions, viz.: (1) Poor tires; (2) improper size; (3) abuse.

Of the first classification very little need be said. It is policy to buy the best, regardless of price, from a reputable concern. That ought to eliminate this style of trouble.

As regards size of tires, this is one of the vital points. Air cushion is essential to the proper equipping of an automobile. It is not the thickness of the tire which counts, for a tire must have its constructive elements in proper proportion. If thickness was the main issue, tires could be built in four inch sizes in the same thickness as five-inch, but such a procedure would permit of the pulling apart and disintegrating of the tire, for it would be out of proportion. The air chamber and its size in relation to the rest of the tire have a great deal more to do with the proposition than most people imagine. One should not be afraid of getting too large a tire. That rarely happens. It is true that makers of cheap cars sometimes equip their models with tires of too small a size, in order to save expense, but this is poor policy. The only objection to a big tire is its clumsy appearance, but this is more than made up for in the tendency toward easier riding that the larger tire gives. Many users of Fisk tires have found this to be

It is also well to get the same size tires for both front and rear wheels, as it is far more convenient in long distance touring, when carrying extra tires of two different sizes is a burden. In event of having to replace a tire on a tour and having to buy same from a dealer, there is a greater chance of his having one correct size than two.

As for abuse of tires—the tire manufacturer gets blamed for many things that are caused by this offense. One of the commonest forms of tire abuse is lack of air pressure in tubes. Hardly one car in ten is driven around with the proper amount of air pressure in its tires. This is principally due to carelessness on the part of the driver, for if the motor is running properly, the tires are overlooked until a flat one makes itself manifest.

Tires should be inflated approximately in accordance with the following table:

Inches.	Lbs.
3	50
3½	55 to 65
4	60 to 7 0
4½	65 to 75
5	
$5\frac{1}{2}$	85 to 100

A few Don'ts may be of value to those who wish to eliminate tire abuse. Here they are:

Don't slide your wheels by locking the brakes.

Don't go around corners on two wheels.

Don't let your clutch in suddenly so that it "bites," causing discomfort to passengers and injury to rear tires as well as motor.

Don't let your tire stand in oil or greasy spots.

nd, above all, do keep your tires well inflated.

PREVENTIVES AND REMEDIES

A careful study of noises, their effects and causes should be made by every automobile owner who drives his own car. The man who is not absolutely devoid of "ear." in a short time will learn the true note of his engine when it is running at its best, and any deviation from the regular sound will serve as a warning that something is not just right. If an entirely strange noise manifests itself it must have a cause, and in most cases the cause is a detrimental one. It means some derangement or bad adjustment, and the driver should not be satisfied until he has diagnosed it. Every time he does so it increases his experience. and renders the operation easier on the next occasion. The same applies to other parts besides the engine. It may be the transmission gear or it may be in the gear box, or the noise may be caused by worn shackle bolts. Wherever the wear is, it will be of an accumulative nature, and consequently the driver should not wait until it becomes excessive, but should at once set about finding it. Sometimes it is a trivial matter, due perhaps to a rattle in the side doors, faulty packing of the acetylene lamp generator, a loose wind shield or something of that sort. No matter what it may be, however, the cause should be sought for.

In some cars the outlet pipes from the mufflers are so placed that the products of combustion are directed against the rear axle or some other painted part with the result that the latter is soon covered with soot. The evil may, of course, be overcome by bending the pipe so that the direction of the out-coming gases is altered.

In order to get the gasolene which has leaked into a damaged carburetter float out of it, it is necessary to apply a mild degree of heat sufficient to cause the gasolene to vaporize and pass off through the hole where the leak is and yet not sufficient to cause the solder to be melted. The float may be held in hot water, in which case the vaporized gasolene will pass through the water in bubbles which will indicate by their starting point where the leak is. or it may be placed in an oven which is not too hot and a lighted match moved

about the float will set fire to the escaping vapor and thus indicate the spot that needs a touch of solder. In using the first method it is necessary, of course, to remove the float from the water immediately after the bubbles cease, in order that no water may work into it.

When we consider that it is generally accepted in steam engineering that a coating 1/4 inch thick on the inside of the boiler tubes necessitates an increase of about 60% in the heat supplied to produce the same amount of steam, the effect of excessive coatings of carbon on the walls of gasolene motor cylinders can be appreciated. The carbon prevents the heat from readily reaching the water jacket, and while at first it may tend to increase the power to an extent it eventually causes pre-ignition through retaining too great a proportion of the heat generated on the power strokes.

If deep rings or grooves are found on the faces of valves or seats, in order to make them tight, it will probably be necessary to use a special valve re-setting tool If the valve is not continually lifted from its seat during the operation of grinding such rings are likely to be formed. Light rings may be removed by continued grinding, using fine emery or one of the common grinding compounds and finishing with crocus powder.

If a motorist decides to have the body and chassis of his car repainted, he will do well to see that all exposed oil holes are stuffed with felt or waste to prevent them becoming choked. Failure to observe this precaution will result in their becoming clogged with paint, which, if not removed before the car is placed in commission, will prevent oil reaching the bearings.

The importance of keeping the radiator of a car clean cannot be over-emphasized. Sediment, inside, reduces the conductivity and makes the radiator as a whole less efficient. Mud in the air tubes or between the flanges tends to reduce the cooling surface and therefore to have the same effect in a smaller degree as does sediment.

C L U B S

The members of the Colorado Springs, Colo., Automobile Club recently held a meeting at which President W. F. Richards appointed the following to constitute the Executive Committee for the current year: Henry Hine, chairman; Thomas E. Curtin, C. F. Yeager, R. W. Chisholm and Dr. W. W. Williams. As a result of the meeting active work providing signboards and placing them along the thoroughfares leading to and from Colorado Springs has commenced. A resolution adopted, and one that met with unanimous support, pledges the fullest co-operation of the club to prevent automobile speeding and reckless driving. Colorado Springs has been free from automobile accidents of any kind for many months, and it is the determination of the club to keep the record.

The Charleston (S. C.) Automobile Club has been organized with the following officers: President, Wilson G. Harvey; vice-president, E. W. Durant, Jr.; secretary, Lane Mullally, M.D.; treasurer, F. G. Davies.

The Grand Island (Neb.) Automobile Club has been organized with the following officers: President, L. M. Talmadge; Dr. Roeder, vice-president, and O. E. Hart, secretary and treasurer.

The Automobile Club of Syracuse is making an effort to increase its membership list by 300 new names before the end of the year, at which time a permanent secretary will be engaged to devote his entire time to club matters.

The members of the Motor Club of Harrisburg, Pa., will soon commence improving the River Road between Maclay Street and Rockville. The club expects to collect the expenses through public subscription taken up among the motorists and horsemen of the Pennsylvania capital. The club. which is one of the most active in the Keystone State, has ordered several King splitlog drags to be used on the road, and is now seeking the permission of the supervisors of the Susquehanna township to go on with the work. The drags will be put on the road after every rain, and with the funds it is

expected to raise, it is believed that within a short time this roadway will be put in much better shape and given a smooth surface, instead of the rough, uneven road as at present. The work will be done under the supervision of officers of the club and will be started as soon as possible.

The Board of Trustees of the New Jersey Automobile and Motor Club last week instructed Secretary Le Massena to ask the police of the various municipalities of Essex County to enforce the law providing for lights on all vehicles at night. The Associated Automobile Clubs of New Jersey will send similar notices to the various clubs throughout the State and a general effort will be made to have the law enforced.

The Chicago Automobile Club reports that more than 200 members of the club made trips of from 200 to 400 miles during the recent holiday period. The tourists went in all directions from Chicago—through Illinois, Wisconsin, Indiana and Michigan.

The Automobile Club of Buffalo has recently placed signs on the roads between Buffalo and Olean and on the Lake Shore Road to Fredonia, many new ones have been erected. The Buffalo club has also sent a request to the State Highway Commissioner, asking that several needed improvements be made on much used roads near the city.

At a meeting of the Board of Trustees of the New Jersey Automobile and Motor Club last week it was definitely decided to establish a touring bureau. The club has been maintaining a bureau of tours, but the new arrangement provides for something more complete, so that the members can procure the necessary directions for any kind of a tour at short notice. The method of its establishment will be left to the discretion of the special committee and the secretary.

The Automobile Club of Syracuse is planning to hold a run to Richfield Springs, N. Y., on the evening of July 30. and remain over for the hill-climbing on the 31st, which is being promoted by Gasherie De Witt. proprietor of the Earlington Hotel at that place.

AUTOMOBILE SPORTS

Representatives of the Quaker City Motor Club held a conference recently with Mayor John E. Reyburn, of Philadelphia, with reference to the charity idea in connection with the 200-mile automobile race in Fairmount Park on October 7. The charity end of the race is to be taken care of by the Board of Health and Charities, under the supervision of the Mayor. A tribute will be asked from all who witness the race this year; donation booths will be placed at every entrance to the park; every inch of space along the course will be disposed of; the grand stand seats will be sold from \$1 to \$5, and the box seats will be auctioned off to the highest bidder. It is thought that in this way between \$10,000 and \$15,000 can be secured for the open-air tuberculosis camp, as suggested by Mayor Reyburn.

The third annual Boulogne meeting will be conducted on July 18 and 19, when the Coupe Franchomme and the Coupe Caraman-Chimay will be competed for. the contest for the Franchomme Cup, which will be held over a course of 7 kilometers, a certain speed will be determined upon for each class, representing 100 marks. Each car in the class exceeding this speed will gain 10 marks for every kilometer in excess, and the car with the highest total marks will be the winner. For the Caraman-Chimay Cup, the contest is divided into three divisions, a speed trial over 3 kilometers on the flat. a climb up I mile on the Bainsthun Hill, and another of 300 meters on Porte Gayole Hill, which has a gradient of 1 in 7.3. All these will be taken from standing start, and the times added together. Marks will be given in the same way as in the Franchomme Cup competition, and the car with the highest marks will secure the trophy.

The Automobile Club of France is organizing a motor ploughing competition for prizes valued at 2,000 francs, to be held in connection with the Exhibition of Agricultural Machinery which is to be held at Amiens in the end of July. Awards will be made according to (a) the execution of the work; (b) the net

cost per hectare; (c) the time necessary for transport, installation and starting; (d) number of men necessary for shifting the machine; (e) ease of application on various ground; (f) possibility of using the motor for other agricultural purposes.

Fitzgerald (Ga.) motorists will conduct a run to Atlanta, Ga., next fall, just before the automobile show in the latter city in November. A prize of \$500 has been offered for the two cars making the best time during the run. The county offering the best roads will also receive \$500.

The Cheyenne (Wyo.) Motor Club is planning to hold an automobile track race meet on August 17.

Regulations governing the trials of agricultural motors which will be held by the Royal Agricultural Society in connection with the show at Liverpool next year have been issued. Any type of motor, either steam, oil, gasolene or electric, will be eligible to compete, so long as they are capable of hauling direct in work a plough or other farming implement. driving threshing machines, etc., and hauling loads along the roads, in all of which they will be tested for efficiency. They will be required to plough an area of about six acres, and the cost of doing this work will be carefully recorded, as well as the amount of fuel, oil and water used. Among other things which will be considered by the judges, will be weight, design and construction of machine, safety and facility of handling and consumption of fuel. oil and water, cost per unit of work done and the price.

The annual hill-climbing contest of the Bourguignon (France) Automobile Club was conducted recently at Val Suzon, and although the surface of the hill was in poor condition, some good sport was witnessed. Venus, on a six-cylinder Clement. succeeded in making the best time of 2 minutes 51 4-5 seconds, the next be the being Gaste on the big Rossel, which was timed in 3 minutes 43-5 seconds.

HIGHWAYS

Interesting experiments have been carried out in Scotland with a new road compound called "Marbit." The material is a specially prepared bituminous compound and surface spraying and macadamizing have both been done by the aid of a machine with excellent results. The portions of the roads sprayed show a perfect skin, are uniform and waterproof, with the advantage that the Marbit is well forced into the roads. Macadamizing is the real test, the material in this case being spread on the roads three to six inches deep, and the Marbit delivered on it in the form of a spray at a pressure of 150 lbs to 200 lbs. to the square inch, then well rolled with an ordinary road roller, the result being a solid, homogenous mass of great strength and durability, with the greatest resistance to wear and weather. Roads treated with Marbit in this way are elastic, and motor traffic runs smoothly on them, without dust in summer and mud in winter. The life of roads is thus very much prolonged, it being estimated that a macadamized one will last fully five years with an occasional spray, and those surfacesprayed one to two years.

It is reported that about the only bad stretch of road between New York and Atlantic City is between New Gretna and Port Republic. This section of road is undergoing repairs, and within a short time it will be in as fine condition as other improved roads in New Jersey. The Freeholders of Atlantic City have taken steps not only to widen this road, but to fill it in so that when the tide is at its highest the water will not cover the road, as it often does.

Allerton S. Cushman, assistant director of public roads, United States Department of Agriculture, who has been in London and Paris with a view to investigating the building and maintenance of public roads in and about those cities, returned to this country last week. Mr. Cushman said he had traveled over a thousand miles of English and French roads and found that the United States was far in advance of those two countries in the construction of roads, but that both the countries visited had a

superior method of maintenance. "The English people," he continued, "spend as much money yearly taking care of their roads as we do in construction. They are not using oil, but sprinkle the roads with tar, and the use of tar has proved a very good method. Massachusetts has imported two of the English sprinkling machines, and, I hear, the result has been satisfactory." Mr. Cushman also attended the International Congress of Applied Chemistry, in London, where he read a paper on the problems of road building.

A meeting of the New Jersey State Highway Commission and the Freeholders of Cape May, Ocean, Atlantic and Monmouth counties was held last week, when the route of the projected Ocean Boulevard was laid out as previously announced from Highlands to Cape May City, with only one slight change. The coast route from Mantoloking was abandoned and a curve out from there made to Burrsville, and thence by inside route to Toms River. This was done to avoid an expensive bridge at Seaside Park.

The Roads Committee of the South Orange (N. J.) Village Board of Trustees has decided to oil a number of streets, and work will probably be begun soon. The roads on which the oil will be applied are Academy Street, Prospect Street, Irvington Avenue, Vose Avenue, Raymond Avenue, Scotland Road, Irving Charlton Avenue, Avenue, Scotland Ridgewood Road, Montrose Avenue, Centre Street, and part of Hillside Place.

A number of prominent men in Central Valley. N. Y., propose to oil the highways in and around their town. A car load of oil, 4,500 gallons, has been ordered, and the work of putting the road in good condition will commence immediately.

The New Jersey Automobile and Motor Club will appoint a special committee to look into the matter of directionary signs at cross roads and to report all places in the vicinity of Newark that are not properly or clearly marked, with the view of the club taking up the matter and properly marking the roads for the convenience of motorists in general.

AERONAUTICS

Glen H. Curtiss, who recently gave New Yorkers something sensational in the way of an aeroplane flight at Morris Park, has shipped his aeroplane to Mineola, L. I., where he will make some longdistance flights over a portion of the Hempstead Plains selected by the Aero Club of America for its aviation field. Mr. Curtiss is anxious to make several lengthy flights over a large unobstructed circuit for two reasons: First, to give his new machine a severe and thorough test of endurance and speed; and, second, as a preparation for his coming flights in France at Rheims during the week of August 22, where, in addition to other contests, he will represent the Aero Club of America in the first international aviation race for the Bennett Cup and a purse of \$5.000. Mr. Curtiss was unable to make as extensive flights as he desired at Morris Park, and before he left for Hammandsport, N. Y., last week he visited the Long Island grounds with Allan R. Hawley and A. Holland Forbes of the Aero Club and came back highly enthusiastic over the admirable facilities for long flights on the Hempstead Plains. "I can get an eight or ten mile circuit easily," said Mr. Curtiss, "over an absolutely flat field with no trees or fences to cause any trouble in case the engine should stop, occasioning an immediate landing. It is impossible to try out the machine satisfactorily at Hammondsport owing to the lack of proper grounds, and while I believe my new machine is capa-ble of a long and fast flight, I am anxious to ascertain the fact from practical experience."

What is said to be the first aeroplane flight in Holland was made a few days ago at Etten, near Breda, by Count de Lambert on a Wright machine. In four minutes he covered a distance of one kilometer, when an ignition short circuit compelled him to land.

Frank W. Goodale, a boy aeronaut who has on a number of occasions given New Yorkers demonstrations of his ability to navigate the air in a dirigible balloon, on Monday of this week left his headquarters at Palisade Park in New Jersey and made a most successful flight

across the Hudson and then down town to 42d Street, sailing directly down Broadway, to the delight of the throngs on that busy thoroughfare. Reaching the Times Building, Goodale made a circle and retraced his route to the starting Going back he had the wind point. against him, but the young aeronaut had no appreciable difficulty. "I would have sailed further down in New York," said Goodale after he had alighted, "but I didn't have enough gasolene to make the journey with safety. When I thought that I had gone about as far as I could and get back safely, I turned around.'

That all aeronauts should be sailors and all sailors aeronauts is the belief of Frank Hedges Butler, a leader in aeronautical interests in England. With a view to carrying out his plan Mr. Hedges has succeeded in instituting a series of sailing races in Southampton water for onedesign eighteen-foot boats belonging to the Motor Yacht Club, and two events have already been held. The competing helmsmen are required to be members of the Aero Club and Motor Yacht Club, or members of either who have made an ascent or flight in a dirigible balloon, aeroplane or free balloon. Prizes have been presented by Mr. Hedges and Griffith Brewer, the latter, also a prominent amateur balloonist.

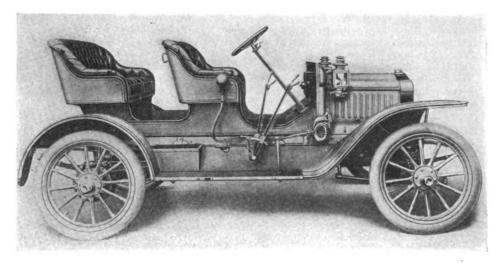
L. D. Dozier, president of the St. Louis Aero Club, reports eight entries for the big balloon races in that city in October. There will be two races; one for balloons of 80,000 cubic feet capacity and one for those of 40,000 cu. ft. capacity. John Berry, Albert Bond Lambert, H. E. Honeywell, S. Louis von Phul and Adolph Meyer will be St. Louis entrants.

The University of Paris has announced two donations in the interests of aviation. The first is \$100,000, with an annual subvention of \$3,000, from Henri Deutsche de la Meurthe, for the foundation of a department of technical aeronautics, including studies and researches for the perfection of aerial apparatus of whatever form, and the second, \$140,000 from Basil Zakaroff, a Greek resident of Paris, for the foundation of a chair of aviation.

Maxwell-Briscoe's Sensational 1910 Model

It has been known for several months that the Maxwell-Briscoe Motor Company had an offering for 1910 that bordered on the sensational, but until now all efforts to persuade the concern to give out any particulars failed. The proper time having come, however, the company made the details public late last week, and they revealed that a four-cylinder car, with magneto

This new Maxwell Model Q will be equipped with a magneto, a set of dry cells also being provided for emergency use. The new car is put out in three styles of body, namely, the standard runabout type, having individual front seats with tool and carrying box in rear; with a rear seat for one, and with a rear seat for two. The following are the specifications:



THE NEW MAXWELL WITH FOUR-PASSENGER BODY

and sliding gear transmission, priced at the remarkable figure of \$850, was the eye-opener in question. The car is rated at 22 hp., and will be known as Model Q. It is furnished as a runabout or with rumble or surrey type of body, the latter at a slight extra charge.

A special feature of this new runabout is that it is equipped with a sliding-gear transmission giving three speeds forward and one reverse. This type of transmission, while used aimost exclusively on large cars, has been considered heretofore too expensive to put on an automobile selling for less that \$1,000. Heretofore, runabouts selling at approximately this price have been fitted with planetary transmissions.

The motor is of the four-cylinder vertical type, dimensions being 334 x 4 inches. The cylinders are cast in pairs, the motor developing 22 actual horsepower at normal speed of 900 R. P. M. The water jackets are cast intergal with the cylinders, and the valves, located on opposite sides, are interchangeable and exceptionally large. Both inlet and exhaust valves are mechanically operated. The tappet rods are of special steel, hardened and ground. The guides are The cams are of phosphor bronze. hardened and ground and enclosed within the crank case, being thus fully protected and lubricated by splash. Three large bearings are provided for the cam shafts, the shaft itself being hardened and ground. The crank shaft is of a special steel drop forging and finished by grinding. The connecting-rods are of steel drop forgings, the bearings are a special grade of compressed babbit. Throughout the entire motor simplicity and strength are the dominant features. The means of access to the connecting rods is provided on each side of the crank case by plates which are quickly removable, thus exposing the rods for inspection or adjustment.

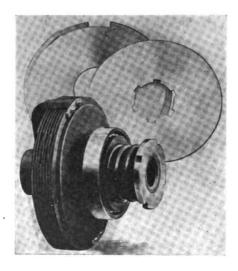
The Maxwell principles of threepoint suspension and unit construction, which have been used on all their models during the past, are successfully worked out on this new type. In fact, this new motor follows closely in many respects their Model DA 30 hp. type.

The transmission is of the slidinggear type, giving three speeds forward and one reverse, direct drive being on third speed. Roller bearings of the latest improved type are used throughout. Gears are drop-forged from special steel carefully cut and hardened. A feature of this transmission, as in fact, on all Maxwell sliding-gear transmissions, is the positive gear lock which prevents the shifting of gears when the clutch is engaged. This safety device precludes the possibility of gear stripping, as it is impossible to change from one speed to another without first releasing the clutch.

The first multiple disc clutch for use on an automobile, either in this country or abroad, was used on the first experimental model that the Maxwell-Briscoe Motor Company built at the end of 1903. Since that date other motor car manufacturers have been gradually discarding the leather-faced clutches of various types and have adopted the disc clutch. It is not surprising, then, to find this new model fitted with an all-metal multiple disc clutch. The

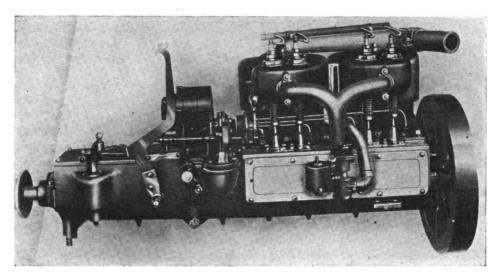
clutch consists of fifteen saw steel discs, each disc being concave about 1-32 of an inch, a construction which causes the clutch to engage gradually, without slipping.

By using the unit construction it is possible to enclose the clutch in an oiltight compartment, the steel discs running continually in a bath of oil. This not only eliminates wear, but permits of the slipping of the clutch without injury to the plates. The thrust from the clutch spring is taken up by a large ball-thrust bearing.



MAXWELL MULTIPLE DISC CLUTCH

The oil is carried in a tank located under the hood; from this it is forced through a single sight feed located on the dash from whence the oil is distributed to each cylinder and to the clutch compartment. A nice feature in connection with this oiling system is a glass gauge which shows through at the dash, so that the operator can at ail times see the amout of oil contained in his oil tank. In connection with the lubrication of this new model is a positive oiling device for each cylinder. An oil ring is fitted at the bottom of each. This ring is constantly supplied with oil



POWER PLANT WITH THREE-POINT SUSPENSION

by the mechanical oiler. Into this ring the end of the piston dips at each stroke, carrying with it enough oil to freely lubricate the cylinder. This device prevents the flooding of the cylinders with oil and eliminates the tendency to carbonize. This particular feature is similar to that used on the larger cars manufactured by this company.

The carburetter is of the constantlevel float-feed type and is of the company's own design. The needle valve adjustment regulates the amount of gasolene, the air being controlled by a simple adjustment at the top of the carburetter.

The thermo-syphon cooling system, which has always been a feature of the Maxwell cars, has been retained in practically the same form as that used on the 30 hp., four-cylinder model. The efficiency of this system as worked out on Maxwell cars was successfully shown in their recent 10,074-mile non-stop run, which was made by a 30 hp., four-cylinder model.

The drive is by a propeller shaft fitted with two self-oiling universal joints. The rear axle is of the bevel

gear type and the gears are drop forgings made from special steel, carefully cut and hardened. Both the main drive gear and the drive pinion are exceptionally large. The drive pinion bearing consists of two large roller bearings of the latest improved type. The models which have been driven thousands of miles, have failed to show any perceptible wear on these bearings. bearings are lubricated by a large selffeeding grease cup. The second feature in connection with this rear axle is a special thrust roller hardened and ground and fitted against the drive pinion. This device has always been a feature of Maxwell rear axles.

Two sets of brakes of the internal expanding and external contracting type are mounted on the rear hubs. The internal brake shoes are of cast iron, expanding on a steel drum. The external shoes are lined with a special asbestos lining and contract on the same steel drum. The brake dimensions are 1½ x 9 inches.

A single lever controls both the clutch and the external brake. The emergency brake also automatically releases the clutch. The spark and throttle are located on opposite sides and immediately under the steering wheel.

The frame is of pressed steel and hot-riveted throughout. The springs are exceptionally long, the front springs being 32 x 13/4, and the rear springs being 36 x 13/4. The strut rods are placed between the rear axle and the trame, so as to take the driving effort off the rear springs. The wheels are of the artillery pattern and of selected second growth hickory. The tires are 30 x 31/2. standard clincher; wheelbase, 93 inches; tread, 56 inches.

Thorough protection to the engine and transmission from mud and dust is afforded by a pan extending from the radiator to the rear end of the transmission. Metal extensions are also provided from the frame to the running board and from the frame to the fenders, so that the car can be driven through deep mud without splashing the body or the passengers. It is not generally conceded that this full underneath protection is as needful for the comfort of the passengers as for the protection of the working parts.

The body is made of sheet steel, with moldings. This new model will be supplied with three styles of body: Runabout, rear seat for one, and rear seat for two. Upholstery is of high-grade leather and the best quality of curled hair. All cars will come ironed for top.

The price of this new Maxwell model will be \$850 for the standard runabout, \$875 with rear seat for one, and \$900 with rear seat for two.

Putting Strength and Enduring Qualities Into the Automobile By HENRY SOUTHER.

It is probable that there never has been a period of such rapid development in the metal trades as has occurred in connection with the automobile industry.

In America the tremendous importance of heat treatment of steel has been grasped and the principals involved therein carried to an ultimate conclusion. Intelligent heat treatment is quite as essential as the quality of steel; a commonplace steel may be given very good physical qualities by proper heat treatment, and the best of steel can be ruined by lack of it. There must be thoroughness in the various operations of annealing, hardening and tempering. Treatment carried on with sufficient care makes uniformity of product possible. How necessary this is in important drop forgings is obvious.

The difference between ordinary material and the best of material is a great one. For example, the elastic limit of ordinary steel is 40,000 lbs. to the

square inch, with, say, a reduction of area of 50 per cent. Properly heat-treated, nickel steel will have an elastic limit of two or two and one-half times this figure, and yet have a reduction of area of 50 per cent. or more.

Brittleness does not follow intelligent heat treatment; and the enduring quality is increased in greater ratio than the elastic limit. Consequently crystallization, fatigue or whatever the cause of breakage we are to prevent, is called, is less likely in a properly heat-treated and tempered material, than in an annealed and soft specimen. This, having been discovered in the laboratory and established in actual practice, is now accepted by the metallurgical world, reversing previous general belief.

Another commonly accepted belief has been that the stronger a piece of steel is, the stiffer it is; for example, that if one steel is twice as strong as another, it will bend only half a much under a given weight. But actual tests have shown that a chrome nickel steel, having an elastic limit of 150,000 or more pounds per square inch, bends under a given load the same amount as a carbon steel. This is true as long as the load is within the elastic limit of the weaker material.

The elastic limit of a well tempered piece of spring steel is above 150,000 lbs. per square inch. If a spring be made of soft steel and not loaded beyond its elastic limit, it would return every time to its original shape, but the deflection would not be sufficient to make a good spring; it would be hardly noticeable. The automobile industry has forced the spring maker to depart from his old materials and methods.

Assume that a good .20 carbon steel has been used with satisfaction for a year or two on a given design of crankshaft. neither bending nor breaking through long continued use. Assume the bearing surfaces are as small in area as possible to run properly. A crankshaft of highly tested chrome nickel steel, having an elastic limit four or five times as high as the .20 carbon material, would be no stiffer, but would have increased life and last much longer.

Really sound knowledge as to steel has been spreading fast among the intelligent manufacturers, who use much discrimination in separating the false from the good. They have established testing laboratories and now examine for themselves what materials they buy. There are, perhaps, a dozen first-class grades of steel in the market (and America has a market at least as good as any in the world, with, of course, always the option of buying abroad for any real or fancied reason) suitable for the highest class of automobile construction.

Bronze is still an important factor. Here the casting method is all important.

Aluminum alloys are of great interest.

Where any form of plain journal is used the bearing metal question seems to have settled down, to a high-grade tin-antimony alloy, running against a soft shaft; a hardened shaft running on a good phosphor-bronze; or a soft shaft running on a white bronze. All of these combinations are giving good results.

The large part of the expense of an automobile engine cylinder is in the finishing labor, and not in the iron. In the foundries there are many complex conditions arising from what a layman would think trifling matters, in the production of first class, sound cylinders.

California Active in Good Roads Work

A good roads convention was recently held in Del Monte, Cal., under the auspices of the Automobile Club of California, which will probably result in many good highways being constructed in the western State. Road supervisors from all over the State attended, as well as motosists.

From San Francisco the supervisors made the trip to Del Monte as guests of the Automobile Club of California, most of them going in automobiles.

The greater part of the distance the officials and county authorities found fine roads, with the exception of the San Juan grade, which is in need of repair. The roads through the Santa Clara and Salinas valleys are in good condition, as a result of the energetic work of the Santa Clara Automobile Club, which organization was strongly represented at the convention by W. H. Polhemus, its president, and a number of members.

History of the Shock Absorber

By E. V. HARTFORD

Many times I have been asked to write the history of the "Shock Absorber," but have always been loath to do so, fearing the subject was of too little importance. However, now I feel that a few may be interested in the starting of a business that grew from nothing to its present splendid propor-The interest is increased when one considers that the "Shock Absorber" was something entirely new. Among the accessories in the automobile industry, such as springs, tires, lamps, batteries, magnetos, etc., all were well known before the automobile itself, but not so with the shock absorber, for this was new born, and hence the wonder of its growth.

In the fall of 1897 I went to live in Being interested in mechanics, I had followed the growth of the automobile industry, then an infant itself, with a great deal of interest. Diverting from the shock absorber history for a moment at this point, I might say that in the fall of 1898 the Marquis de Dion, who perhaps is responsible as much as any other man for the present automobile, sent me to America with the object of trying to obtain sufficient funds for the establishment of a branch of the house of de Dion in America. My mission failed entirely, and was a great disappointment to me as well as a loss to the industry in the United States. At that time no one seemed to be willing to venture any money in a project which, while well established in France, had practically not started here at all, and capitalists with whom I consulted gravely questioned the possibility of any man spending the amount of money necessary to purchase an automobile for his own use; and that should there be any demand for automobiles, they could be made here cheaper and even better than abroad, although in reality we were many years behind the Frenchmen at that time.

In the spring of 1899 I went to Versailles to witness a 100-kilometer motor tricycle race. At this time more interest was taken in this than in the automobile, as they were faster. The race was won by Marcellin, beating Baras, who up to that time had been well established as the motor tricycle king. When I looked Marcellin's tricycle, a Darracq, equipped with a 12 hp. Buchet two-cylinder motor, noticed that the fork was entirely different from the ordinary one. Marcellin, whom I knew, as I did all of the racers, informed me it was La Truffault Truffault Fourche (the Spring) and was a great invention. then turned to Baras and inquired of him how Marcellin had come to beat "It's that La him, and he replied: Fourche Truffault. In my last race, which was partly over cobblestones, I used it, but as this race was over a road like a billiard table, I thought I would do better without it, but will never race without it again." Baras' tricycle was identical with Marcellin's with the exception of the Truffault fork.

The following day I looked up Monsieur Truffault and found him in a humble little shop located near the Porte Maillot, with his two sons working with their own hands, and no other help, building La Fourche Truffault. Monsieur Truffault was a man of about 60 years of age, of the pure type of the inventor, creating one thing and then bending his energies on something else, not sticking to one idea until he had marketed it and established it on a firm financial basis. I saw a great deal of M. Truffault and learned to know him intimately. He was a splendid type of a better class of Frenchmen, working

with his sons, who were more like intimate friends in his shop during the day, and living an ideal life with his family after working hours. From his inventions he should have been a very wealthy man and long since retired from active business, but instead, the manual labor he was even then still performing had cramped and bent his fingers like an old mechanic who had spent years at the bench. Truffault actually invented the hollow bicycle rim which first made the light safety bicycle possible. He turned his invention over to a large manufacturer of bicycles who promised him a royalty of ten francs on every bicycle manufactured. Truffault, with that inventive mind bent more on improvements and new inventions, failed to take the necessary legal steps to protect himself, and the manufacturer, putting his conscience behind him, became a multi-millionaire, and the royalties which were actually Truffault's were never paid, being in themselves sufficient to have made him a wealthy man.

I had the La Fourche Truffault applied to my own 21/4 hp. de Dion tricycle with the most gratifying results. Truffault and myself became fast friends, and worked in unison on the problem of a shock absorber for the various types of suspensions as were being used on automobiles. Truffault had a complicated idea which involved a somewhat radical change in the construction of the automobile, and I suggested the present simple three-point suspension which has been used with such great success to the present day.

In the fall of 1900 I went back to the United States and tried to interest some one in the invention. I bought a 6 hp. Oldsmobile, and sent it over to Truffault to experiment with, and this car had the honor of being the first auto mobile which was fully equipped with a

set of our shock absorbers. Before this, however, I had demonstrated principally with a tricycle, but could get no one to take the matter seriously enough to give me any encouragement. Even some of the best automobile engineers of the day could not understand why we wanted to brake the action of the spring with friction, and thought we should rather put ball bearings all around to let the spring give its maximum oscillation.

One exception was Mr. Thomas A. Edison to whom I took my tricycle at his experimental plant in Orange, N. J., and rode up and down over a series of 150-pound castings about eight inches in height. Mr. Edison seemed to be very much impressed, sending for me after the demonstration, and it certainly looked as if he intended taking it up. I waited for days to hear from him in vain. I spent hours endeavoring to interview and interest automobile engineers and executive officers of the automobile companies then started, but no one seemed to think the matter was worth taking up much of their attention, and had I been dependent for my living on the exploiting of the shock absorber for the first two years, I should have been in dire want. A little later I met personally a New York manager of a large automobile company, and in discussing the automobile business I mentioned my shock absorber, and through him obtained permission to make a demonstration at their factory. As this seemed to be the turning point of the career of the shock absorber, I considered the circumstance of sufficient importance to go to the expense of bringing Truffault over from France. He remained at the factory for two weeks, it being necessary to change the very stiff springs with which the car was equipped with a more supple set. When the job was finished and the shock absorbers applied, the factory's testing force gave them a test such as few shock absorbers have receive:1 since, and Mr. Truffault assured me that he never again cared to go through the same experience. In his own words, "Instead of sticking to highways they attempted to drive the car across country." However, the shock absorbers made a very successful demonstration, and a short time afterward the company made me an offer of \$1,000 for the patent. That was scarcely equal to the amount that this one demonstration had cost me, it being necessary to pay and take care of Truffault for the two weeks he was over here, besides paying for his time and his passage both ways while on the water. Naturally we declined to accept the offer and negotiations ceased.

The automobile industry in France at that time was much further advanced than in the United States, and shortly after Mr. Truffault returned to Paris he closed negotiations with Peugeot to exploit the shock absorbers in France. Peugeot put them on his own cars and sold a few sets besides. The increase. however, in the marketing of the device was slow until the late Leon Thery became interested and decided to equip his Richard Brasier racer which he was at that time preparing for the Gordon Bennett race in June, then the Blue Ribbon event of the year. Thery's sweeping victory over his opponents of four different nationalities has now become part of automobile history. With less horsepower than any other of the competing cars, he triumphed over them easily, and on every side the question was asked what was the cause. problem was easily solved. It was the Truffault-Hartford shock absorber. which economized the power by keeping the wheels on the ground, saved the tires and the whole mechanism of the

car, besides which Thery was able to pass over all road obstructions without cutting off his power, while the others were obliged to slow down materially.

At once all the racing drivers rushed to Peugot to have their cars equipped with shock absorbers, and from this time on the business went ahead with rapid strides.

We placed an initial order for twenty-five sets with the Garvin Machine Company, and after this was duplicated twice we opened a small shop on Hudson Street in October, 1903. By May of the following year we were running night and day striving to supply the demand, and conditions have rarely changed since that time, although we are now manufacturing 50,000 shock absorbers yearly. Like all great successes, numerous imitators have sprang up and there have been many infringements. However, at the start we had patented every deviation of the idea and were amply protected. Besides this we strove and succeeded in turning out an article of absolutely the best material, and so designed that it would do its work indefinitely without attention or any trouble whatever to the customer. The proof of the wisdom of our efforts is that we have always done at least 90 per cent, of the shock absorber business. and the Truffault-Hartford shock absorber being the first on the market and the only one ever adopted by manufacturers as regular equipment, has no rivels in the well-merited position given it by the trade.

Mexico Has an Automobile Road

A splendid automobile road has been commenced and is almost a third completed, from Tolcua to Tenancingo. State of Mexico. The construction of the road is the result of the efforts of a number of prominent Mexican officials who reside along the route.



WEEKLY JOURNAL DEVOTED TO THE INTERESTS OF AMERICAN AUTOMOBILISTS.

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Contests and Their Advantages

In the opinion of some people there is nothing like a contest to try out a car. Others regard contests as quite useless, believing that cars-established makes, this is-do not need to be tried out. Some of the latter go further and say that even if need existed to demonstrate the efficiency and reliability of a car, contests, as at present organized, would shed no light on the subject.

It will scarcely be denied that the car of to-day has no need to be tried out. factory experts and put it through a reliability run or similar contest. They point to the fact that in many famous runs of the past cars have just managed to finish, with about everything that could go wrong in bad condition, so that if called upon for a run of a few miles more, they would have been down and out.

It will scarcely be denied that the car of to-day has no need to be tired out. Before it is placed on the market it is subjected to the severest possible tests, and its makers know pretty well what it is going to do when it finds its way into the hands of the public. At the same time, it is a fact that contests have frequently revealed shortcomings or weak points in cars that are already on the market and giving excellent satisfaction. This, however, is past history, and not likely to be repeated, so great has been the improvement in all the standard makes.

Another argument in favor of contests is that they provide facilities for trying out new models. It is not necessary to give this argument any very serious attention. In the first place few makers would care to put an experimental car in such a contest as the A. A. A. tour, for example, and take the risk of its doing all sorts of undesirable things in the presence of business rivals and a vast number of other people who are devoting their attention to the contest. The risk quite overbalances the possible gain, and for this reason the matter may be dismissed without further argument. It may be added that most makers prefer to do their trying out, where new models are concerned, in semi-privacy, at least.

There remains the third argument in favor of such contests. It is a double one, combining matters of business and pleasure. The contention is that such a tour as that which started from Detroit Monday, en route to Denver, is a "publicity stunt," and a pleasure jaunt. It is both, but the pleasure end of it is be found to be about the costliest pleasure jaunt on record, and for this reason, a tour of this kind is almost entirely a trade enterprise, were footed up it would be found to be about the costliest please jaunt on record, and for this reason, if for no other, it is sheer folly to regard it as such.

The real purpose of the tour is to secure publicity. It is good advertising—good for the automobile in general, and for the makers whose cars participate in particular. Of course, some cars go wrong and get setbacks, more or less temporary, while others come through with flying colors, and derive solid benefit as well as glory from the performance.

But it is as a trade jamboree that such affairs as these are to be regarded. The automobile is kept before the public, partly through the newspapers and partly through the interest awakened in the sections traversed, and the contest is featured as the big event of the year. The advertising thus obtained is well worth the money that has to be expended, and while some makers who do not participate receive a portion of the benefit, through the advertising the automobile receives, the bulk of it goes to those who actually take part in the tour.

Sauce for the Gander

Delaware has done what New York only threatened to do—that is, put into effect a law which hands out to States like Pennsylvania and New Jersey the same treatment that visiting motorists receive in those commonwealths. In other words, Delaware's new law extends privileges exactly like those extended by their home States. A Pennsylvanian, for example, who crosses the line and finds himself in the Diamond State, is himself liable to arrest and fine if he has not taken the precaution to procure a Delaware license. A New Yorker, on the other hand, enjoys the same privileges which New York extends to the visiting Delawarian.

What is sauce for the goose should be, and is this case is, sauce for the gander.

TRADE DEPARTMENT

Big Value in the Hudson "20"

Many people will wonder how much value can be given for \$900, as is contained in the Hudson "20," which is being placed on the market by the Hudson Motor Car Company, of Detroit, Mich. The reply is a three-fold one: First, the Hudson people possess the experience, through their affiliation with the Chalmers-Detroit Company (President Chalmers and others being interested in the Hudson company); second, quantity output is a determining factor, it being the intention to produce in but one model, thus effecting a very great saving in the cost of production.

The Hudson "20" roadster is a vertical four-cylinder machine with the cylinder cast en bloc.. Bore 3¾ inches, stroke 4½ inches, and capable of developing 20 hp. The engine is water cooled by the centrifugal pump system and the front end of the motor uarries

a fan. All the valves are located on one side. The lubrication is effected by the splash, and the force feed plunger pump system.

Transmission is of sliding gear; selective type; three speeds forward and one reverse. A leather faced cone clutch with slip springs under leather is used. The car has a 100-inch wheel base and a 32-inch wheel, built of selected second growth hickory. The drop frame is of pressed steel. rear axle is shaft driven and of the semi-floating type equipped with a bevel differential gear, while the front axle is of one piece I beam drop forging. The steering gear is of worm and gear type, with especially large bearings. The ignition system is spark coil and dry coils with provisions made for a magneto. The "20," which seats three, is sold for \$900.

The Successful Auto Salesman

The theory of successful automobile salesmanship is explained by T. P. C. Forbes, Jr., of the Overland Automobile Company, who compares the matter to an endless chain.

"If a salesman gains the confidence and friendship of one customer by taking a personal interest in his welfare and trying at all times to take care of him promptly, in case he meets with any little difficulties which are bound to arise with a novice in handling anything of a mechanical construction, he is paving his way for the sale of his product to his customer's friends," he says.

"There are thousands of cars bought but few sold. Many salesmen are meeting with apparent success in getting rid of their products, not by their expert salesmanship, but because of the fact that there is a great demand for good motor cars.

"In the operation of its employment bureau, the American Motor Car Manufacturers' Association pays unusual attention to the matter of good automobile salesmen. Of course, it goes without saving that a salesman must have a pleasing manner, as one's personality figures largely in gaining the customer's confidence. He should be thoroughly familiar with the product he is handling, so that he can explain in detail every part of an automobile from the motor down to the smallest mechanical part. Not only should he be acquainted with the product which he is selling himself, but he should also understan! to a certain degree, the mechanical construction of other makes of automobiles.

"A good automobile salesman, to be successful, should be enthusiastic and thoroughly believe in the machine he is selling. If he does not become enthusiastic, he will never succeed in selling cars. Lack of enthusiasm will fail to inspire confidence.

Another important thing which an automobile salesman should always bear in mind is that he should never ciriticize a competitor's product. A good motto is "Live and let live." If the prospect ive purchaser buys another make of car the salesman should wish him success and continue his interest in the purchaser, as he will always remember that interest, and speak a good word for the salesman to other friends.

"By treating each of his customers with equal courtesy showing no undue favoritism, he will gradually establish a clientele which will make his services an unlimited value to the company which he represents. This means hard work and apparently lots of good time wasted so far as immediate results are concerned. A good automobile salesman should maintain his temper and be calm in spite of any annoyance which may present itself.

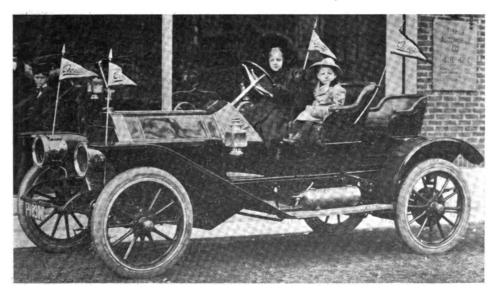
"The automobile industry has opened up new positions for good automobile salesmen. There probably is no industry which pays better wages, and surely none which is connected with so many pleasures as is the selling of motor cars."

A Tiny Driver and Her Dog

There will be some difference of opinion as to whether the young lady or the dog is the star performer shown in the accompanying illustration. Gallantry urges that the palm be awarded to the former, but utilitarians will al-

most certainly evince a partiality for his canineship—and with considerable season.

The little lady is ten-year-old Mary Freda Brown, daughter of Will H. Brown, vice-president of the Overland



A TRIO OF MASCOTS

Automobile Company, Indianapolis, Ind. Not only is Miss Mary a fascinating child, but she has demonstrated repeatedly that she can handle an Overland with unusual dexterity for a child of her years.

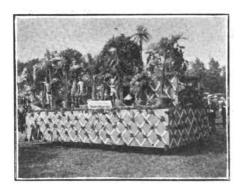
While she has not yet taken any tours, she has become well known on the highways surrounding Indianapolis. She recently drove an Overland in a parade in which 400 cars perticipated and controlled the machine like a veteran. During her trips she is always accompanied by her younger brother Albert, and the factory mascot, Overland

Bob. It is a safe bet that Albert and Bob are also ardent Overland supporters.

There is not an Overland or Marion agent in the country who doesn't know Overland Bob. While but five years of age, Bob has travelled many thousands of miles in a motor car, having ridden since he was a mere pup. Like most thoroughbreds, Bob knows a trick of two, and entertains the agents while they are holding down the office chairs waiting for Overlands to be shipped, or increased contracts to be made out.

Good Tire Makers Do Things

Pursuing their usual aggressiveness when celebrations or special stunts are in order, Morgan & Wright, the wellknown Detroit tire makers figured very prominently in the doings in that city

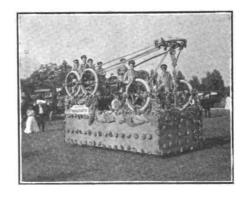


preceding the start of the A. A. A. tour, on Monday, July 12.

On Saturday morning, July 10, there appeared on the streets and in the Hotel Pontchartrain, where the majority of the tourists put up, nine little boys dressed in bright yellow automobile coats, caps and goggles, exact counterparts of the Little Chauffeur which Morgan & Wright have used in their advertising for a number of years. They distributed cards showing a map of the Glidden Tour and the various controls.

In the large parade which took place in the afternoon, Morgan & Wright were represented by four very attractive floats, two of which are shown in the accompanying illustrations. The first one was a tropical jungle with seven little pckaninnies dressed up, or rather undressed, to represent the natives of the Amazon region gathering the rubber from the tropical trees.

The next float showed two tire-builders at work and two huge display boards, on which were displayed tires in the various stages of construction—



from pure Para rubber to the completed article.

The next two floats were elaborately decorated with bunting and paper

flowers and carried the nine little chauffeurs who made such a big hit on the streets in the morning. The little fellows also went on the lake ride given by the Chamber of Commerce on the big steamer City of Cleveland Sunday afternoon, and received enough attention to

turn their heads. Monday morning, previous to the start, they appeared again, this time carrying sacks full of small boxes of automobile wind matches, which they distributed through the crowd as the machines lined up for the start.

Winton Sales Boosters' Convention

The group of distinguished looking men who are here shown as a result of a successful snapshot, are everything ers, who assemmbled at Cleveland recently to talk over matters connected with the 1910 models, and incidentally



READY FOR THE CAMERA MAN

that would be expected from such a picture. They are Winton sales boost-

to swap stories about their success in disposing of the 1909 output.

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INDEX TO ADVERTISERS

Automobiles (Electric)—	
Babcock Electric Carriage Co. Baker Motor Vehicle Co. Studebaker Automobile Co.	. 980
Automobiles (Gasolene)—	
Chalmers-Detroit Chalmers-Detroit Motor Co EMFEveritt-Metzger-Flanders Co	. 1035
FrontenacAbendroth & Root Mfg. Co	1039 4.075
HerreshoffHarry S. Houpt Co	. 1037
Hudson-Hudson Motor Car Co	. 977
Inter-StateInter-State Automobile Co	. 1039
Matheson-Matheson Motor Car Co	
Maxwell-Briscoe Motor Co	
Mitchell Motor Car Co	. 1039
Mora—Mora Motor Car Co. Overland Automobile Co. Palmer & Singer Mig. Co. Pecricas Motor Car Company	. 982
Palmer & Singer Mfg. Co	.1039
Peerless Motor Car Company 1909 A. A. A. Tout	1008
THE FIGURE ATTOW MICHOL CAL CO INSIDE DACK	COLCI
Rambler Thos. B. Jeffery & Co	973
StearnsThe F. B. Stearns Co	•
Stevens-Duryen Co	1005
The R. R. Thomas Motor Co.	1039
Studebaker Automobile Co	Cover
Automobiles (Steam)—	
The White Company Back	Cover
Lane-Lane Sales Co.	.1039
Batteries-	
4000 A A A M.	1005
Stanley & Patterson	1005
· · ·	1005
Bodies-	•
· · ·	•
Bodies— Springfield Metal Body Co	•
Bodies— Springfield Metal Body Co	. 980
Bodies— Springfield Metal Body Co	. 980
Bodies— Springfield Metal Body Co	. 980
Bodies— Springfield Metal Body Co	. 980 .1040
Bodies— Springfield Metal Body Co	. 980 .1040
Bodies— Springfield Metal Body Co	. 980 .1040
Bodies— Springfeld Metal Body Co	. 980 .1040
Bodies— Springfield Metal Body Co	. 980 .1040
Bodies— Springfeld Metal Body Co	. 980 .1040
Bodies— Springfield Metal Body Co	. 980 .1040
Bodies— Springfield Metal Body Co	. 980 .1040
Bodies— Springfield Metal Body Co	. 980 .1040
Bodies— Springfield Metal Body Co	. 980 .1040
Bodies— Springfield Metal Body Co	. 980
Bodies— Springfield Metal Body Co	. 980
Bodies— Springfield Metal Body Co	. 980
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Instruction— Correspondence School of Motor Car Practice
Lamns— 983 Badger Brass Mfg. Co. 983 Gray & Davis 1035
Lubricants 1037 Columbia Labricants Co
Magnetos— Eisemann Magneto-Lavalette & Co
Oils— Columbia Lubricants Co. 1037 Vacuum Oil Co. 983
Ornaments Billiken
Parts— Billings & Spencer 1038 Standard Welding Co
Photo Engravers - Sterling Engraving Co
Second-Hand Dealers— Times Square Auto Co
Shock Absorbers— Bi-Cal-Ky Auxiliary Spring Co
Signaling Devices Nightingale Whistle Co
Spare Wheels United States Spare Wheel Co
Spark Pluge— A. R. Mosler & Co
Timers
Tires— Ajax-Grieb Rubber Co 1038 Continental Caoutchouc Co. 1037 Diamond Rubber Co. 978-979 Firestone Tire and Rubber Co. 981 Fisk Rubber Co. 1036 Morgan & Wright. 1036 Republic Rubber Co. 1038
Tire Gripe— Weed Chain Tire Grip
Tops Sprague Umbrelia Co
Travel— Detroit & Cleveland Navigation Co
Wind Shields Sprague Umbreila Co



News Notes

A new concern under the name of the Steel City Automobile Company has been formed at Joliet, Ill.

The Diamond Rubber Company is about to establish a branch in Atlanta, Ga. The new house will be opened about August 15.

A Maxwell agency has been placed in Shawano, Wis., with the Shawano Auto Company, which was recently formed by P. F. Dolan and Herman Heller.

A branch of the Peerless Motor Car Company is to be established in Newark, N. J., at 237 Halsey Street. George H. Smith will be in charge as manager.

F. L. C. Martin, of Plainfield, N. J., who has the State agency for Mitchell cars, has added the Hupmobile to his line. Martin has placed an order for 500 of these cars, and will begin making deliveries about August 1.

It is announced that the Automobile School of the West Side Y. M. C. A. will complete the largest year in its history this season. The July registrations, which are still being received, already number more than fifty. This brings the total number of students trained during the year to 902, or nearly 200 more than last year.

Charles M. Hamilton, who is a member of the New York State Legislature, made a trip of 340 miles in a single day, recently, in his sixcylinder Winton. He left Ripley, N. Y., at 5 o'clock in the morning and arrived in Toronto, 170 miles away, eight hours later. He left Toronto at 5 o'clock in the afternoon and was back at Ripley at midnight.

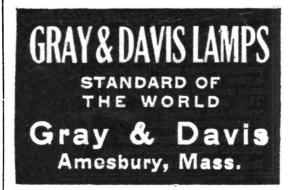
W. L. Walls, manager of the Maxwell branch house in St. Louis, was presented recently with a handsome pair of diamond cuff buttons by the members of the Executive Committee of the Kansas City automobile show. This was in recognition of his telling work for the 1909 show just prior to his going to St. Louis to take charge of the Maxwell branch house.

Foundations are being laid at 3974-76 Olive Street, St. Louis, for a new building for the Phoenix Auto Supply Co. Their retail department will be located there as soon as the building is completed, which will be about September 15. The new quarters will front 50 feet by a depth of 153 and will be one-story and basement. The front is to be of white tile and the entrance of white marble facing.



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DETROIT, MICH.



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Regular No. A, 50c.
Eyes Exposed to Sun, Wind and
Dust Quickly relieved by the Soothing and Potent Influence of Murine.

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Broadway and 76th St., New York

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GUARANTEE

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U. S. Spare Wheels are made in sizes to fit any Automobile wheel and are made for clincher or detachable rims.

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PRICES		
All 28 and 30 in\$18.00	All 34 In\$20.00	
All 32 in\$19.00	All 35 in\$22.00	
All 28 and 30 in		
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Hereafter Maxwell cars are to be distributed in Philadelphia from a branch house, instead of by the Longstreth Motor Car Co. The interests were transferred last week by mutual consent. change is in keeping with the policy of the Maxwell-Briscoe Motor Company to conduct their retail selling as far as possible from branch houses. William F. Smith, the general manager of District No. 3, will have general charge of the retail, as well as the wholesale end of the business. The business will be conducted in the same commodious quarters as heretofore, 207-9 North Broad Street.

Robert P. McCurdy and Herman H. May. of Pittsburg, have organized the McCurdy-May Company for the handling of Pierce-Arrow cars in Pittsburg and vicinity. Both Mr. McCurdy and Mr. May have been closely identified with the Pierce-Arrow interests in Pittsburg for a number of years, Mr. McCurdy in sales matters and Mr. May in the maintenance of the many Pierce Arrow cars now in successful operation in the city. The latter is a nephew of Henry May, vice-president and factory manager of the Pierce-Arrow Motor Car Company, of Buffalo. The new company has already occupied its new quarters, and a number of orders for 1910 cars for delivery during the present touring season have been booked.

When shown the 1910 announcements of some other manufacturers and asked as to the changes in Palmer-Singer cars for the coming season, Charles A. Singer, president of the Palmer & Singer Manufacturing Company, said: "The cars we are selling to-day are 1910 models and differ from the 1909 cars only in unimportant refinements. I notice that among the 1910 announcements of various manufacturers unusual prominence is given by some to the fact that their new cars will be equipped with four speed se lective type sliding gear transmission, with direct drive on third speed. Not only were these points features of the Palmer-Singer specifications from the very start, but our 1908 cars have as well imported F. & S. ball bearings used exclusively throughout the cars, multiple disc clutches in all models, hand forged I beam front axle. all brakes equalized, all expanding type and on rear wheels. Universal joints on all steering connections. All moving parts enclosed in dust proof cases. Nickel steel was used to secure lightness and strength and all of our types are shaft driven."

George Robertson, made his debut with the Harry S. Houpt Company in the Charter Day hill climb at Plainfield, N. J., and scored signally in his initial effort. Driving the 24 hp. Herreshoff runabout, he defeated the 30 hp. Buick, the No. 11 Buick, the Overland and Mitchell cars, and was beaten two-fifths of a second by the Marion Indiana trophy car. The Herreshoff was

Mention "Automobile Topics" when writing.

the stock demonstrator of the Plainfield agent and made the 15 per cent grade with its nine turns in 1.37 1-5. The best time for the course was made by the 60 hp. Stearns, which was one of three cars to beat the Herreshoff time. Robertson will campaign the little Herreshoff cars in all the stock events for which they are eligible after August 1. From now until the first of August he will spend most of his time at Bristol, Conn., where the new Houpt cars are building. The two racing runabouts which are being constructed there will be ready for the road next week and will be actively campaigned from the first of August on. The Houpt cars have already been entered in the race at Lowell on Labor Day and will be driven there by Robertson and Willie Haupt. The latter will also drive the Herreshoffs in competition, while a third driver now under contract with another concern will be engaged to join the team on August 1.

INCORPORATIONS

Milwaukee, Wis.-The Battery Light and Power Company, with \$25,000 capital. Incorporators: E. Oscar Werwath, William F. Borges and William A. Schroeder.

Milwaukee, Wis .- Meiselbach Manufacturing Company, with \$50,000 capital. Incorporators: A. D. Meiselbach, S. Wallheim and L. W. Clough.

Birmingham, Ala.—The K. E. Auto and Electric Company, with \$10,000 capital, to deal in automobiles and electrical supplies. Officers: Kyle Elliott, president; T. G. Erwin, vice-president; L. S. Kyle, secretary and general manager.

Jersey City, N. J.—Bongartz Co., with \$500,000 capital, to manufacture automobile supplies. Incorporators: Bruno Bongartz. Edward Pietz, Ferdinand Christensen and Charles C. Kelly.

North Creek, N. Y .- Waddell & Emerson Stage Co., with \$12,000 capital, to operate an automobile stage line. Incorporators: William Waddell and Robert Waddell.

Dayton, Ohio.—The Chalmers-Detroit Motor Car Co., of Dayton, with \$5,000 capital. Incorporators: Ernest Ooley, Joseph H. Ooley, Albert Emanuel, Benjamin J. Ooley and George W. Schaeffer.

Chicago, Ill.—Auto Parts Co., with \$50,000 capital. Incorporators: Bert Symonds, Archie Symonds and Frank Keown.

Camden, N. J.—The Autocar Service Co., of New Jersey, with \$10,000 capital. Incorporators: David S. Dudlum, John S. Clarke and E. A. Fitts.



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Wheels fitted with

DEMOUNTABLE RIMS

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Has played an important part in every great racing and touring victory. It brings confidence to the driver and produces the greatest amount of motor efficiency under the most trying conditions.

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The Utmost for \$1500

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We also make the Chalmers Detroit "Forty" (formerly the Thomas etroit Forty) for \$2750.

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Screw Driver, the "All Steel"

One Piece Steel Throom Sure-Grip Handle Light and Effective THE BILLINGS & SPENCER CO., Hartford, Conn.

DIXON'S MOTOR GRAPHITE

Especially prepared flake graphite for motor lubrication. Increases H. P., saves wear, cuts mileage cost. Get booklet 11 G and sample.

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Col. Sprague's New Wind Shields

The Leader in Brass The Surprise in Wood

Get Our Lew Prices on Good Goods

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Automobile Calendar

- July 17-26.—An exhibition of agricultural motors at Amiens, France.
- July 19.-Head-lighting Trials, under the auspices of the Royal Automobile Club of Great Britain.
- July 23-24—Reliability and consumption competition in connection with Royal Automobile Club of Great Britain Provincial Meeting.
- July 24.—Automobile track race meet at Latonia, Ky.
- July 26-28.—First Annual Automobile Show and Track Races in Amarillo, Texas, under the auspices of the Amarillo Automobile Show Association.
- July 30-31.—Twenty-four hour race meet at Brighton Beach, N. Y., under the direction of the Motor Racing Association.
- July 31.—Hill-climbing contest at Richfield Springs, N. Y.
- July 31.—Hill-climbing Contest in Springs, N. Y.
- July 31.—Automobile Race Meet at Elm Ridge Park, Kansas City, Mo., under the auspices of the Kansas City Automobile Club.
- July 31.—Annual London to Cowes Race, under the auspices of the British Motor Boat Club.
- July 31.-Club Run and Shore Dinner at Olympic Park, Newark, under the auspices of the New Jersey Automobile and Motor Club.
- August 5.—Fourth annual hill-climb on the Algonquin, Ill., hill, under the direction of the Chicago Motor Club.
- August 11, 12, 13.-Motor Boat Carnival off Newport, R. I., under the auspices of the New-port Yacht Club.
- August 17.—Automobile track race meet at Cheyenne, Wyo., under direction of the Cheyenne Motor Club.
- August 22.—A series of Speed Trials, under the auspices of the Automobile Club of Frankfort-am-Main.
- August 22-29.—Aeroplane races at Rheims, France, under the auspices of the Aero Club of France.
- August 24-27.—Circuit of Ardennes; Liederkerke cup and voiturette race, under the direction of Automobile Club of Belgium.

August 26, 27, 28.—Three Days' Endurance Contest, under the auspices of the Minnesota State Automobile Association.

August 29-September 3.—Small car competition, under direction Automobile Club of Germany.

September 4-5.—Mont Ventoux hill-climbing contest, under the auspices of the Vanclusien Automobile Club.

September 6-11.—Six-days' motor carnival, under the auspices of the Lowell (Mass.) Automobile Club.

September 11-19.—Florio cup race, under the auspices of the Automobile Club of Bologne, Italy.

September 12.—Two automobile road races, under the auspices of the Automobile Club of Ostend.

September 15.—Start of endurance contest from Denver to Mexico City.

September 19.—Semmering hill-climb.

October 2-17.—Aeronautical Salon in the Grand Palais, Paris France.

October 7.—Second annual stock chassis race in Fairmount Park, Philadelphia, under the auspices of the Quaker City Motor Club.

November 6-13.—Automobile Show at Atlanta, Ga., at Auditorium Armory, under auspices National Association of Automobile Manufacturers.

December 29-30.—Fourth annual mid-winter endurance contest, under direction of the Quaker City Motor Club.

December 31-January 7.—New York City, Grand Central Palace; Decennial International Automobile Show. Under management of the American Motor Car Manufacturers' Association with the Importers' Automobile Salon and the Motor and Accessory Manufacturers. Alfred Reeves, general manager, 505 Fifth Avenue, New York City.

January 8-15:—Tenth Annual National Automobile Show in Madison Square Garden, New York, under the auspices of the Association of Licensed Automobile Manufacturers.

Feb. 5-12.—Ninth Annual National Automobile Show in Chicago, under the auspices of the National Association of Automobile Manufacturers.

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FOR SALE—60 American Roadster, driven less than 2,000 miles; in perfect condition; guaranteed 60 miles per hour; demonstration given. P. O. Box 588. Bridgeport, Conn.

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There is speed, comfort and safety in every inter-state car, the permanent, enduring car, at a price but a little higher thar the price o : temporary, make-shift cars. The inter-state Touring Car, \$1,750. The inter-state Roadmer, \$1,750. Send for Catalogue.

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SEND 10c. for Set of Twelve Post Cards of Locomobile Winning Vanderbilt Race.

SEND 10c. for Eleven-Color Poster of the Finish of this Race.

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\$11,000,000
WORTH OF EXPERIENCE BEHIND THE NEW
\$1,500 Mitchell

This price includes \$300 worth of extra automobile value not included in other cars selling at this price. Learn what it is. Write to-day for detailed description. MITCHELL MOTOR CAR CO., 667 Mitchell St., Racine, Wis.

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Reliable, Simple
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Invaluable to the owner or prospective owner of a motor car. Practical and to the point.

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1910 combine the superior reliability and durability for which our product is famous, with exceptional silence in operation and notable easy riding qualities

"30" Locomobile Shaft Drive "40" Locomobile Chain Drive Touring Cars, Roadsters, Limousines, Landaulets.

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Automobiles

If you are of a mechanical turn, the perfect mechanism of the STUDEBAKER will appeal to you.

If you like comfort and luxury, the appointments of the car will strike home.

If you want a car that will take you anywhere and bring you back without the usual road trouble, the reliability of the STUDEBAKER will settle the question for you.

If you are particular about style, you will find genuine beauty in our designs, taste in the minor fittings and a certain individuality that gets far away from the "factory-made" feeling.

We have letters by the dozens from many prominent people who have driven STUDEBAKER cars with perfect satisfaction, over all kinds of roads and in both hemispheres.

We will be glad to let you see what they say about their cars any time you call. Many of them have owned various makes of the highest priced foreign cars—but now swear by the STUDEBAKER.

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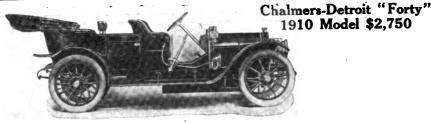
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This Car at \$2,750 All That Any Price Can Buy

Here is all—save excessive power—which care or cost or skill can combine Our "Forty" is the utmost obtainable. in a motor car.

The Chalmers-Detroit "Forty" is not the only satisfactory car.

In these days, there are several designers who seem to have come pretty close to perfection.

But no equal car sells at an equal price. None gives so much for the

And no other car, in official contests, has so well proved itself the all-around

Four Years' Record

This car was designed by Howard E. Coffin, after other cars had earned for him a reputation as one of the leading automobile designers of the country.

Never a mistake has been made in it. And the four years have brought out none but minor improvements.

In scores of contests-for speed, endurance and hill-climbing-the car has won against all of its rivals.

1910 Improvements

This season, by increasing our output, we have cut the making cost. And the saving all goes to buyers.

The Bosch magneto, the Prest-O-Lite gas tank and the new style gas lamps this season go free with it.

The wheel base is increased to 122 inches, giving room for seven passengers. The wheels are increased to 36

The car is now upholstered in hand-buffed leather. The new lines are ex-The finish no man can excel. quisite.

Minimum Profit

The Chalmers-Detroit cars are put out at a profit of nine per cent. Our output this season is 4,000 cars.

No other maker gives an equal value. No maker can ever give more.

Our extras are also sold at a minimum profit. We fit our "Forty" with mum profit. We fit our "Forty" with a Newport mohair top for \$125. The regular price is \$150. We supply the two extra seats in the tennest of two extra seats in the tonneau for \$75.

The Economical Car

This car is 40 h. p., A. L. A. M. rating. It has power enough for any road, for any hill, for any speed one wants.

The low cost of upkeep will be fairly amazing to those who know other cars. On the cars sold for the year ending June 1, owners paid us for repair parts, only \$2.44 per car.

All One Can Want

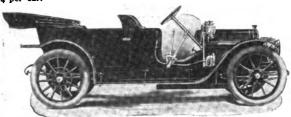
Any man can find in our "Forty" the utmost that he wants.

A higher price means a higher cost of upkeep, or a maker's excessive profit.

To pay less means to get less. For it is utterly impossible to sell cars at less profit.

Names of Owners

Please ask for our 1910 catalog. Let us send you the names of nearby owners. We will ask you to see them and to act on their advice.



Chalmers-Detroit "30"—1910 Model—\$1500

Made in Touring Car, Pony Tonneau, Roadster, Limousine, Landaulet

Last spring we turned away orders for 800 of these cars—for \$1,200,000—after our 1909 output was sold.

Now our 1910 models are out.
The wheel base is increased to 115 inches, and the wheels to 34 inches.
The tonneau is larger and roomier, and the hood is correspondingly longer and higher. The engine has increased power.

power.

It looks like a far more expensive car, but the price remains \$1500.

And, this season, we add a Bosch magneto, a Prest-O-Lite gas tank and two Atwood-Castle new style gas lamps—all for \$100 extra. The regular price of these extras is \$175.

We add a Lenox mohair top—a \$125

top-for \$75 extra. So this 1910 model, when fully equipped, costs less than the

This is the car that won the Indiana This is the car that won the Indiana Trophy, when every rival, save one, was a more powerful, more costly car. That was a "stock car" race. This is the car which made the pathfinding trip from Denver to Mexico City, through oceans of sand.

This car has made endurance records are the cover of the path of the car has made endurance records.

such as no other car at any price ever

Please send for our 1910 catalog, showing all the improvements in both of these cars. The 1910 models are now being delivered, and orders are filled in rotation.

Chalmers-Detroit Motor Co., Detroit, Mich., U. S. A.

Members Association of Licensed Automobile Manufacturers

TO OUR READERS

If you wish to consult at your leisure the catalogues and price lists of the leading makers of cars, tires, lamps, lubricants, shock absorbers, speed indicators, anti-skidding devices, batteries, ignition apparatus, etc., we will supply them on request. Write our Catalogue Department and we will forward you, postage prepaid, such literature as you may specify, or advise you regarding a choice of cars or accessories. Your name will not be given out, so that you need not fear being over-run with solicitors or circulars. We have on hand catalogues of the following makes of cars:

Babcock Maxwell Baker Mitchell Chalmers-Detroit Mora Columbia Overland E-M-F. Peerless **Fiat** Pierce-Arrow Haynes Rambler Herreshoff Renault Hudson Stearns Inter-State Stevens-Duryea Tewel Studebaker Lane Thomas Locomobile Winton White Matheson

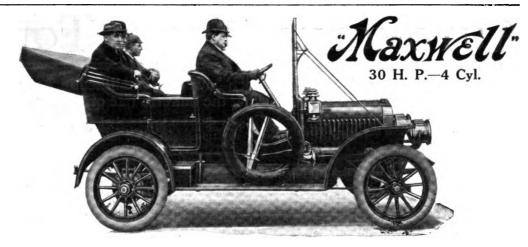
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Another instance of the reliability of the Maxwell is that of Mrs. John R. Ramsey and her three women companions, who are touring from New York to San Francisco in a 30 H. P. Maxwell.—Ask any Maxwell owner and he will tell you his car is Perfectly Simple—Simply Perfect.

Satisfy yourself on this automobile problem by asking the man who owns a Maxwell. His reply will be something like the following letter. This is but a sample of the hundreds we receive. We have collected them in a little book. It is yours for the asking.

Maxwell-Briscoe Motor Company, Tarrytown, N. Y.

March 25, 1909.

Gentlemen:

I thought perhaps you would like to put in The *Co-Operator a few words about a car that has been run 35,000 miles or more. It is an '05; motor No. 197. I have run it Summer and Winter through Massachusetts, Maine, New Hampshire, and New York, and furthermore the engine has never been overhauled since I had it. It is running so finely I would not like to part with it.

Yours truly,

Mediord, Mass.,

'NOTE: The Co-Operator is a magazine that we publish twice a month. It is bright, interesting, and full of valuable information. Do you want your name put on the mailing list?

awtucket, R. I.

J. W. BURNHAM.

A WORD TO YOU FROM THE PRESIDENT OF THE COMPANY

On or about August 15th, I shall announce our new line of Maxwell automobiles. Wait for this announcement, for I know that Mr. J. D. Maxwell has produced what will prove the sensation of the year.

Since 1904, the Maxwell has consistently "made good." Over 16,100 satisfied users of Maxwell automobiles is the best proof of our success. Naturally we are proud of our record in the past—for the uture our new line will offer the greatest value that the American public has yet seen. Write today and let me out your name on our mailing list for our advance literature.

Very truly yours,

Being Briscos

MAXWEL BRISCOE MOTOR CO.

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Automobile Topics Tours

The following is a list of the Tours which have been published in AUTOMOBILE TOPICS, and which can be supplied at the uniform rate of 10 cents each

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105—Baltimore to Cumberland.
107—Baltimore to Washington, vi
128—Philadelphia to Salisbury.
129—Salisbury to Norfolk.
224—Jackson to Rockledge.
225—Rockledge to Miami.
215—Philadelphia to Hagerstown.
216—Hagerstown to Wheeling.
217—Wheeling to Columbus.
218—Columbus to Lexington.
219—Lexington to Nashville.
220—Nashville to Chattanooga.
221—Chattanooga to Atlanta.
222—Atlanta to Savannah.
                                                                     EASTERN STATES SECTION
       231—Philadelphia to Lakewood and Asbury Park.
96—Johnstown to Pittsburg.
98—Philadelphia to Washington.
99—Philadelphia to Hanover.
120—New York to Lakewood, via Newark and New Brunswick.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               via Annapolis.
                      wick.
-New York to Philadelphia, via Camden.
-New York to Sag Harbor, via Long Island's South
  122—New York to Sag Harbor, via Long Island's Shore.

123—New York to Orient Point, L. I., via Long Island's North Shore.

220—Philadelphia to Atlantic City.
228—New York to Philadelphia, via Newark, New Brunswick and Trenton.

131—New York to Lake Hopatcong.
134—New York to Schooley's Mountains, via Morristown.
238—New York to Lake Mahopac.
239—New York to Mohonk Lake.
136—New York to Delaware Water Gap, via Plainfield and Somerville.

137—Delaware Water Gap to New York, via Port Jervis and Newburg.
                                                                                                                                                                                                                                                                                                                                                           NEW ENGLAND STATES SECTION
                                                                                                                                                                                                                                                                                                            36—Portland to Bar Harbor.
44—Boston to Troy.
93—Bridgeport to Pittsfield.
115—New York to Pittsfield (Inland Route).
117—New York to Pittsfield, via Poughkeepsie.
118—Pittsfield to New York, via Hudson, Newburg and
136—New York to Delaware Water Gap, via Plainfield and Somerville.

137—Delaware Water Gap to New York, via Port Jervis and Newburg.

147—Philadelphia to Delaware Water Gap.

152—New York to Pine Hill.

153—Pine Hill to Binghamton.

153—Binghamton to Bath.

154—Bath to Buffalo.

155—Buffalo to Auburn.

156—Auburn to Utica.

157—Utica to Albany.

158—Albany to New York.

227—Philadelphia to New York, via Trenton.

169—Gettysburg to Johnstown.

170—Johnstown to Pittsburg.

235—New York to New Jersey Coasts Resorts.

235—New York to Port Jervis.

236—Port Jervis to New York.

186—Philadelphia to Cape May.

187—New York to Greenwood Lake.

188—New York to Greenwood Lake.

188—New York to Lake Hopatcong.

200—Philadelphia to Harrisburg.

223—Philadelphia to Harrisburg.

223—Philadelphia to New York.

202—Guide to the Long Island Parkway (Vanderbilt Cup Course).

203—New York to Orient Point (North Shore Route).
                                                                                                                                                                                                                                                                                                            118—Pittsfield to New York, via Hudson, Newburg and Tuxedo.
237—New York to Pittsfield, via Albany.
119—Bridgeport to Pittsfield.
125—New York to New Haven.
126—New Haven to Springfield.
127—Springfield to Boston.
132—New York to Narragansett Pier and Newport.
133—New York to Narragansett Pier and Waterbury.
148—Boston to Bretton Woods.
149—Bretton Woods to Lowell.
150—Lowell to Lenox.
                                                                                                                                                                                                                                                                                                            149—Bretton Woods to Lowell.
150—Lowell to Lenox.
151—Albany to Springfield.
197—Pittsfield to Burlington.
198—Berkshire Hills to New York (Inland Route).
232—New York to Hartford.
233—Hartford to Boston.
                                                                                                                                                                                                                                                                                                                                                                     1906 GLIDDEN TOUR SECTION
                                                                                                                                                                                                                                                                                                                 84—Buffalo to Auburn.
85—Auburn to Saratoga.
86—Saratoga to Hotel Champlain.
87—Hotel Champlain to Montreal and Three Rivers.
88—Three Rivers to Quebec.
89—Quebec to Jackman.
90—Jackman to Waterville.
91—Waterville to Rangeley.
92—Rangeley to Bretton Woods.
    Course).

203—New York to Montauk Point (South Shore Route).
204—New York to Orient Point (North Shore Route).
213—Philadelphia to Lakewood and Asbury Park.
214—Philadelphia to Atlantic City, via Gloucester.
217—New York to Valley Forge.
212—Valley Forge to New York.
230—New York to Wilkesbarre and Scranton.
                                                                                                                                                                                                                                                                                                                                                                     1907 GLIDDEN TOUR SECTION
                                                                                                                                                                                                                                                                                                             138—Chicago to South Bend.
139—South Bend to Indianapolis.
140—Indianapolis to Columbus, O.
141—Columbus, O., to Canton, O.
142—Canton, O., to Pittsburg.
144—Bedford Springs, Pa., to Baltimore.
145—Baltimore to Philadelphia.
146—Philadelphia to New York.
207—Pittsburg to Bedford.
208—Bedford to Gettysburg.
209—Gettysburg to Philadelphia.
210—Philadelphia to Washington, via Wilmington and Baltimore.
                                                                    WESTERN STATES SECTION
   WESTERN STATES
52—Cleveland to Pittsburg.
72—Kalamazoo to Detroit.
75—Rockford to Dubuque.
106—Cleveland to Columbus.
160—New York to Albany.
161—Albany to Syracuse.
162—Syracuse to Buffalo.
163—Buffalo, N. Y. to Astabula, O.
164—Astabula to Toledo, O.
165—Toledo, O., to Goshen, Ind.
166—Goshen, Ind., to Chicago.
173—Cincinnati to Bellefontaine.
174—Bellefontaine to Toledo.
205—Chicago to Bloomington.
206—Bloomington to St. Louis.
SOUTHERN STATES
                                                                                                                                                                                                                                                                                                                                                                      1908 GLIDDEN TOUR SECTION
                                                                                                                                                                                                                                                                                                             1908 GLIDDEN FOUR SEC

190—Buffalo to Pittsburg.

190—Pittsburg to Harrisburg.

191—Harrisburg to Milford.

192—Milford to Albany.

193—Albany to Boston.

194—Boston to Poland Springs, Me.

195—Poland Springs to Bethlehem, N. H.

196—Bethlehem to Saratoga.
                                                               SOUTHERN STATES SECTION
     50—Louisville to Lexington.
101—Gettysburg to New Market. Va.
102—New Market to Natural Bridge, Va.
103—Staunton to Richmond, Va.
104—Richmond to Norfolk, Va.
                                                                                                                                                                                                                                                                                                                                                                              1909 A. A. A. TOUR SECTION
                                                                                                                                                                                                                                                                                                               240-Detroit to Valparaiso.
```

AUTOMOBILE TOPICS

103 PARK AVENUE (Cor. 41st St.)

NEW YORK CITY



Diamond Tires Win Every Glidden Tour

1908

Average tire cost per car on **Diamond Tires** Average tire cost per car on other makes of tires . . 64.94 Blowouts of Diamond Tires Blowouts of other tires 56 **Total Cars on Diamond Tires** 21 Total Cars on all other tires

1909

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Diamond Tires are made for every kind of rim. They are all around tires. Note that the second day before the Glidden Tour started, with such an overwhelming Diamond representation among contestants, Diamond Tires on the Apperson car won the 202-mile Los Angeles road race for heavy cars, establishing a new record; also won the light car race over the same course on the Chalmers-Detroit.

Valuable Tire Instruction Book for the Asking



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103 PARK AVENUE NEW YORK CITY

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am "Billiken"

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Place me on your engine hood
And I'll bring no end of good;
For a hundred years I promise not to fail you.
—Billiken.

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I do not claim magic power, but everywhere, everyone says I'm more potent than a rabbit's foot in the hind pocket of a seventh son of a seventh son.

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Six years of standard service

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ment

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Vol. XVIII.

NEW YORK, JULY 24, 1909.

No. 16.

TABLE OF CONTENTS

Reception to the A. A. (Glidden) Tourists at Sauk City Frontispiece	
Topics	1053
Lowell to Hold Two Stock Chassis Races	1056
Indianapolis Entry Blanks Are Out	1057
A. A. Tourists Near Denver	
Curtiss Aeroplane Wrecked by Novice	
Wrights at Last Get Things Going	
Power Boats Encounter Severe StormIllustrated	
Philadelphia Race May Have Foreign Cars	1068
Peerless Line for 1910	1009
paraiso to Madison	1073
Road Up Mt. Ranier is Opened	10/3
Made 135,002 Points in Gallon Test	1070
Reeves Talks on 1910 Conditions	1080
Some Observations on the Prince Henry Contest	1088
New Features of Connecticut Law	1082
Mitchell Motorists Make Merry at San Jose	1091
Don't Keep to the Middle of the Road	1093
An Imaginative Statesman	1094
E-M-F, to Build 25,000 Runabouts at \$650	1095
	1007
Maxwell-Briscoe Men Meet at Newcastle	1008
Some Firsts for the Houpt CarIllustrated	1000
Chauffeur Butler and His Prize-Winning Car	1100
Weed Wins Victory	1101
Index to Advertisers	
News Notes	
Incorporations	
Automobile Calendar	1100

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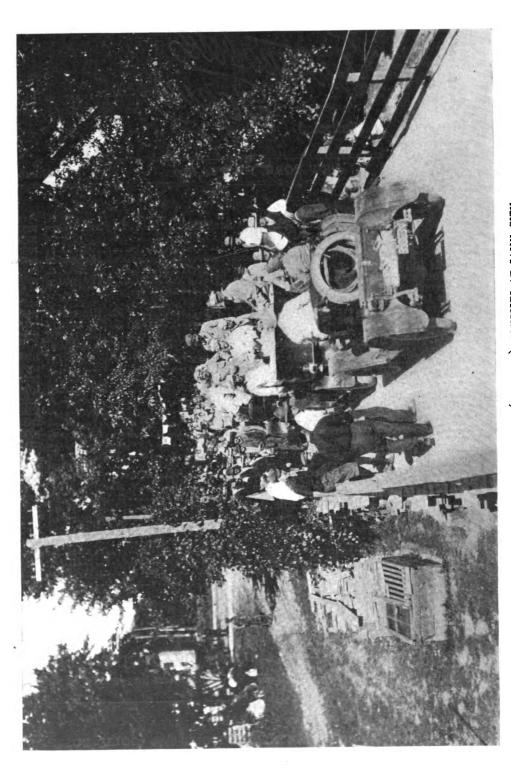
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THE AUTOMOBILE USERS' WEEKLY

Vol. XVIII.

NEW YORK, JULY 24, 1909.

No. 16.

TOPICS

Lieutenant Shackleton, who for several years has had the honor of being the most talked of aspirant for Polar discovery hon-

ors via a motor vehicle, is to have a rival. Count Zeppelin is organizing an exhibition which has for its ultimate object the North Pole. Dr. Eckener, one of Zeppelin's intimates, is of the opinion that the north pole will be much more easily attained by dirigible airship than the south pole, for many reasons, the first being that no such severe gales are anticipated as at the south pole, which, as Lieutenant Shackleton discovered, is situated on an elevated plateau. Protuberances on the earth's surface, such as mountain ranges and forests, offer a resistance to air currents which results in those dangerous gusts that have proved fatal to many an airship. This friction is non-existent in the Artic regions, always supposing that the ice covered Artic Ocean extends beyond the pole itself. Scores of experiments carried out with kites and register balloons between the seventy-second and the eighty-second degrees northern latitude have shown that wind was only twice observed at heights exceeding 1,000 feet, above which, as a rule, almost complete calm reigned.

"How close to a horse, tied at the roadside, may an automobile go without rendering its driver liable for an accident that may occur? This is the question a Wisconsin justice was called upon to decide recently, and he decided it against the motorist. The testimony showed that the car was being driven at a moderate pace, under its own momentum, the engine being dead, and when passing the horse was but three feet away from it. The horse broke away, but a bystander grasped the bridle. At this juncture, the owner of the horse appeared and demanded damages for the damaged piece of harness. He got it, too.

The difference between aviators, real and would-be, was shown last week. As a result the Curtiss machine was badly damaged and the amateur aeronaut who attempted to make an ascension with it is in a hospital nursing sundry

serious injuries. Evidently the conquest of the air is not such an easy matter as it appears if one judges solely by the exploits of the Wrights, Curtiss, and others.

In the period of renewed activity which the railroads of the country are looking forward to, and which is expected to be in full swing this fall, automobile shipments cut quite a figure. A Michigan railroad man is quoted as saying that in that State alone almost 40,000 cars will be shipped this year. As it takes one freight car for every two to three automobiles, it will be readily seen what an enormous number is required to haul one State's output of automobiles.

From April 1 to July 9, 100 days, 3,200 automobiles were registered in Indiana. It is estimated that the sale of cars in that State averaged \$32,000 daily.

A Pennsylvania physician has outdone the Wrights, Zeppelin and other famous aviators. "I have attained something, which, I am safe to say, is more than any other air navigator has so far succeeded in doing; that is, navigating a plane in the air with absolute stability, without the assistance of a motor," he says. With his machine, with twenty-foot planes, he says, he has taken flights by using only the power he obtains from the working parts of a bicycle.

The estimated value of the cars registered in Massachusetts this year was \$40,000,000. During the first six months of 1900 the State collected \$127,913—quite a snug sum, and sufficient to do quite a lot of road maintenance work.

Missouri motorists are confronted with a rare dilemma. There is a sum of money, amount not stated, in the treasury of the Missouri State Automobile Association, which fell into a state bordering on innocuous desuetude some little time ago; and what to do with that money has engaged the attention of not a few Missouri motorists, who are, as is expected, of the "show me" order. Recently the Jefferson City Automobile Club grappled with the subject and passed the following resolution: "Whereas, It has been suggested that the money remaining in the treasury of the Missouri State Automobile Association be used for the purchase of a trophy cup to be competed for in a free-for-all race across the State from Kansas City to St. Louis, via Jefferson City, some time in October. This it followed up with a resolve to support such a race.

In order to demonstrate, we are told, that it is not men alone who can compete creditably in automobile contests, three young women of Oklahoma, traveling three different roads and driving touring cars of identical make and model, recently made a 103-mile run from Oklahoma City to El Reno. What better proof could one ask than this?

Refuse from ore mills has, it is discovered, proved an excellent substitute for stone for building and repairing roads. The discovery was made in the southwestern Wisconsin lead and zinc fields, where immense quantities of "tailings," the residue of mills for grinding ore, have been used as a substitute for crushed stone for macadamizing roads, and found to be even superior to the material now commonly used.



Brighton Beach Nearly Ready for Practice

Work on the reconstruction of the Brighton Beach racetrack has been progressing greatly during the last week, and indications are that the course will be in condition for practice within a few days. The curves at each end of the track have been fixed so that the chances of accident have been minimized. Announcement was made this week by A. B. Cordner, chairman of the Brighton Beach Committee of the Motor Racing Association, that entries for the two days' speed tournament on the track by the sea on July 30 and 31 will close as the various lists become filled.

Officially, entries do not close until noon on July 26, but the demands for entry blanks has been so great and noninations for the six events on the card are coming in so rapidly that the management decided to close each event when they consider that they have received all the entries that safety will permit to be started on the track. As soon as sixteen cars have been nominated for the 24-hour race, the list for that event will be declared closed, and the entries will then be announced. The same procedure will be followed in the case of the other five events.

It has been decided that the 24-hour event will be a continuous affair. In previous 24-hour races it has always been the custom to call the contestants off the track at least once during the race, either to run off a number of short-distance runs or to roll the track and remove the loose dirt and dust.

A protest has been filed with Chairman Hower, of the Contest Board of the A. A., and Chairman Coffin, of the Manufacturers' Contest Association, by the racing manager of the Buick Motor Company against issuing a sanction for the 24-hour race. The Buick people contend that the promoters placed a minimum price limit

of \$2,500 on competing cars with the sole intent of preventing the entry of the Buick team. To this protest the committee in charge of the race said that they did not think much interest would be taken in a race where small priced and powered cars competed against cars of larger make and price, but that if the public demanded a race where small cars would be admitted one would be arranged for later in the year.

At a meeting of the Motor Racing Association on July 16, C. F. Wyckoff was re-elected president, E. R. Hollander vice-president, Carl Page treasurer and Walter C. Allen secretary. Harry S. Houpt was elected chairman of the technical committee and H. A. Lozier chairman of the executive committee, while A. B. Cordner was re-elected chairman of the Brighton Beach committee, in full control of the tournaments on the motordrome by the sea. Associated with him on that committee are C. F. Wyckoff and H. U. Palmer.

For the initial meet of the motordrome the following officials have been selected: Referee, Samuel B. Stevens; judges, A. R. Pardington, A. A. A.; Coker F. Clarkson, .A L. A. M.; Alfred Reeves, A. M. C. M. A.; umpires, W. R. Teaboldt, A. H. Whiting; paddock judges, Peter Fogarty, E. T. Birdsall, Walter R. Lee, Edw. F. Flammer; patrol judges, E. Broadwell, L. Rockwell; timers, S. M. Butler, P. A. Sayles, A. L. McMurtry, Geo. McGraham, Prosper Clust, Chas. J. Dieges; starter and clerk of course, Fred J. Wagner; assistant clerks of course, Arthur Warren, Jav Cothran.

The committee to pass upon the qualifications of drivers will be Joe Tracy, chairman; Guy Vaughn and Arthur Campbell, all race drivers of experience. Dr. Geo. W. Bogart will be chief of the medical staff.

Lowell to Hold Two Stock Chassis Races

Encouraged by the success attending the running of their stock chassis race last year, the officials of the Lowell (Mass.) Automobile Club, after long deliberation, have announced that their club will hold two stock chassis events on September 6 and 8. Several weeks ago, Chairman Hower, of the Contest Board of the A. A. A.; Fred. J. Wagner, the A. A. A. official starter and several others prominent in the automobile racing game, visited Lowell for the purpose of arranging for the big events. Shortly after their visit the entry blanks were issued.

The first day's racing, September 6, will be devoted to a sweepstake race in which three classes of cars will compete. This race, as well as the event on September 8, will be run over the Merrimac course, the scene of the race last year in which Lewis Strang and his Isotta were returned the victors.

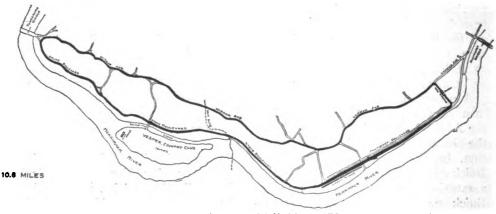
The cars in the sweepstake race will compete for three trophies. In class 2, for cars with a piston displacement of between 301 and 450 cubic inches, inclusive, with a maximum weight of 2,100 pounds, the cars will be required to make twenty laps of the 10.6-mile course, or 212 miles. The prize for this

class will be the Vesper Club trophy and, in addition, \$600 in cash or plate to the winner; second \$200, and third, \$100.

Class 3 cars will compete for the Yorick Club trophy, and the winner will receive in addition \$66 in cash or plate. For second position the driver or entrant will receive \$200 and for third place \$100. The entrants in this class will be limited to cars of 231 to and including 300 cubic inches piston displacement, minimum weight of car 1,800 pounds. The distance to be traveled will be 159 miles or fifteen circuits of the track.

The smallest cars, or those in Class 4, will compete for the Merrimac Valley trophy, and will race 127.7 miles, or 12 laps of the course. In addition to the trophy the following prizes will be distributed: \$600 to the winner; second, \$200; third, \$100, in cash or plate. This class will be closed to cars of 161 up to and including 230 cubic inches piston displacement; minimum weight of car 1,500 pounds. The entry fee for each of these classes will be \$300 a car. Entries close August 14.

The sweepstakes race on Labor Day will only be a sort of appetizer for the



COURSE FOR THE LOWELL RACES

big race that is scheduled to be run on the second day following. This race will be the second national stock chassis competition for the Lowell trophy, and is open to any stock chassis of 451 to 600 cubic inches piston displacement; minimum weight of car 2,400 pounds. The cars will be required to circuit the 10.6 miles course thirty times, making a total distance of 318 miles. In addition to the \$5,000 Lowell trophy the following cash or plate prizes will be awarded: Winner, \$1,000; second, \$500; third, \$300, and fourth, \$200. The entry fee for each car will be \$400.

Indianapolis Entry Blanks are Out

The entry blanks for the three-day automobile carnival which will mark the opening of the Indianapolis Motor Speedway on August 19, have just been issued. In all, seventeen events will be run over the course during the three-days' meet. The principal event will be the race for the Indianapolis Motor Speedway trophy, donated by Wheeler & Schebler, at 300 miles, on August 21.

Two other big races will be run, one on each of the two other days, and entrants in these races will be permitted to compete in any other event at the meeting to which the car may be eligible, without additional entry charges.

Cars will be allowed the use of the speedway course and garages free of charge for a period of ten days previous to the races, but for a longer time, a special permit must be obtained from the management. Anti-skid tires and tire chains will not be allowed on the course. Entries close on August 10 at noon.

Staten Island Cops are Over-Officious

Several members of the Automobile Club of America recently complained to the officers of their organization that the bicycle policemen on Staten Island, particularly those stationed near the ferry landing at Tottenville, have been over-zealous in their attention to motorists.

Many instances have been reported of

drivers being arrested because their cars have been traveling at twelve or fourteen miles an hour, though the officers have generally charged the drivers with going twenty miles an hour or more. It is said that policemen with stop watches are posted along the road-side all the way from Tottenville to the ferry landing at St. George.

Kansas City Club Wants Ordinance Enforced

The members of the Kansas City (Mo.) Automobile Club have decided to ask for the enforcement of the ordinance which requires lights on all vehicles traversing the highways after dark. At a meeting held for the purpose of discussing the ordinance the formation of a State automobile association was also considered, but it was

decided to withhold action until the latter part of this month, when a special meeting will be called for that purpose.

The members of the Louisville (Ky.) Automobile Club decided at a recent meeting that they would open club head-quarters at the Louisville Hotel.

A. A. A. Tourists Near Denver

The Missouri River was reached by the A. A. A. (Glidden) tourists on Wednesday, July 21, and more than one-half the journey had been completed. Crossing the river, Nebraska will be entered and 'ere this paper reaches its readers Denver will be almost in sight, the schedule calling for their arrival there Saturday night. The going has been strenuous at times, and penalties have been imposed on many cars. The story of the run from day to day is told in the following pages by Automobile Topics' special correspondent:

LA CROSSE, Wis., July 15.—This city was the destination of the fourth day's run of the tourists, and tired and dust-stained, they were thankful when the 154-mile journey from Madison was completed. To-day the Gliddenites had their first taste of real hard going, and five of the cars were eliminated from the perfect score column.

The first forty and the last twenty

miles of the route to-day was over highways that were in fairly good condition, but the intervening section had roads that were the worst ever met with on a Glidden tour, with one exception. Waterbreaks were numerous, and they were well grown-up "Thank-you-ma'ams," at that. It was on an exceptionally large one that the Midland, the only car in the Glidden tour division penalized on the day's run, came to grief. The car received such a badly bent mud pan that immediate repairs were necessary.

It is not an unusual thing on Glidden tours for the cars to arrive at the day's destination sometimes as much as two hours ahead of their schedule time, but to-day the first car to appear at the control here was only fifteen minutes early. Nearly all of the cars finished so close to their time limit that there was no opportunity to load up with gasolene and oil before checking in.

Ralph Goldwaite, driving a Maxwell runabout, was setting the hand brake



THE RECEPTION AT MILWAUKEE

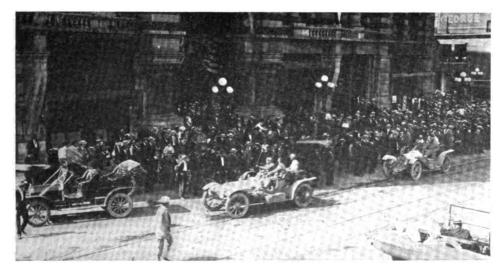


AT ROCHESTER, MINN .--- A POPULAR DRIVER OF A CHALMERS-DETROIT

when his car struck one of the waterbreaks. He and his observer were thrown out, but in falling Goldwaite set the brake, and the car came to a stop a few feet further on. Neither the car nor men were injured.

No official announcement as to penalizations was made to-night, as Starter Ferguson failed to make an appearance until early Friday morning. In avoiding running down a child who had suddenly stepped in front of the car near Wilton, Wis., the Acme was ditched and a spring broken. After repairing the damage, the car continued the trip and did not arrive here until early in the morning.

The following penalizations for the day were announced, all with the exception of the two Brush being against



ARRIVAL AT HOTEL WEST, MINNEAPOLIS

perfect score cars: Midland, 3.7 points; Brush (103), 3; Brush (104), 343.9; Hupmobile, 458; Maxwell (107), 2.6; Jewel (111), 7, and Mason, 2.4.

MINNEAPOLIS, July 16.— To-day's journey of 178 miles from La Crosse to Minneapolis, seemed uneventful after the climbing of the day before, between Madison and La Crosse. Within the first half mile a long bridge on the Mississippi River had been crossed without toll, although the route book stated differently. That made but one toll in traveling 823 miles. Then came two long mountain climbs with magnificent scenery and many water breaks.

Twenty-five miles out, Pleasant Valley, rightly named, was entered. Ideal roads add much to its charm. It proved the most attractive stretch in the first five days' travel. Eight miles beyond lay Winona, the biggest point touched en route. The entire city was out and the cordiality of the greeting suggested Jackson, Mich., and South Bend, Ind. The last two-thirds of the day brought rather more soft sand than any day since the first, with dust in proportion. Accordingly the tourists were as dirty as coal miners when they rolled into St. Paul. Candy and carnations tied together, along with printed and stamped postal cards were tossed into the cars as they passed through the smaller of the twin cities.

There was a gasolene station just on the edge of Minneapolis and there the travelers were given fac similes of the clasped pin of the Minneapolis Automobile Club, with the added mark "Glidden 1909," along with a guest ribbon and a book of admission tickets to a round of gaieties.

There was nothing perfunctory about the welcome given the tourists at Minneapolis. The general remark is that Minneapolis has more automobiles than any city west of Chicago, except Los Angeles, and the number of cars in the streets, along with the license numbers, bears out the statement. Nor is it a mere case of numbers, for the Minneapoleans use their vehicles every hour of the day and almost sleep in them at night. There are hundreds of carminepainted runabouts in town, and the way they go up the street and then down again reminds one of the small boy who is bound to show off his toy red wagon.

The Minneapolis Automobile Club 's a large, lively circle that had no trouble in carrying out its two days' entertaining, although the St. Paul club, which is almost as large, peevishly declined to take a hand in the festivities, not even answering the letters the Minneapolis folk sent suggesting co-operation. The entry to Minneapolis was through St. Paul, where the travelers were pelted with cut flowers tied to confections, and a printed, stamped postal card bearing a message, by bright hued ribbon. That, however, was the only notice the St. Paul folk deigned to bestow upon the Gliddenites. The Minneapolis folk, on the contrary, met the automobilists in St. Paul at a gasolene station and distributed badges, also books of tickets for the divertisement to follow. There was plenty of bell ringing and whistle blowing at the fire stations and factories as the travelers rolled into town, blacker than coal miners. The parking station was most inconveniently situated, so far, being nearly a mile from the West Hotel. An unfortunate blunder in the route book sent several of the contestants a mile out of the way for the parking station, and the detour made one of the runabouts late nominally. The case is before the Contest Board for decision. The first evening (Friday) these poor half starved A. A. A. officials, who haven't had much to eat for ten days, were given another dinner on the principle that "them as has, gits." Saturday morning the rank and file of the tourists took chartered trolleys for Minnehaha Falls, the Niagara of Minnesota. There really isn't any laughing matter about the beautiful falls, despite the name, the water pouring over a semi-circular shelf of rock that projects outward like the lips of a pouting girl. Fort Snelling was visited to see the cavalry and infantry tactics, adjournment being to the officers' club at

produced here. It was thought that the line would be as long, if not longer, than in Detroit the previous Saturday afternoon, but in place of more than 1,000 cars in Michigan, less than 400 actually started. Nearly a thousand automobiles were out that did not join in the parade. If the other twin city—St. Paul—had joined hands, a new record for parades might have been made. Sunday morn-



THE EXCURSION TO LAKE MINNETONKA

that post, a lubricating station for the human mechanisms.

The evening brought the automobile parade, which was exceptionally elaborate. Indeed, some of the decorations were so flimsy in their artistic attempts that three of the cars caught fire. Women in the height of summer finery were aboard all three cars and had to jump quickly to avoid serious singeing. Other accidents to spectators also marked the evening, for several hundred thousand people saw the affair.

More than one trade feature seen in the recent New York Carnival was reing the tourists were conveyed to Lake Minnetonka by gasolene for a sail by steam. Upon alighting, a group picture, numbering nearly 200 heads, was taken.

MANKATO, July 19.—The first thirty miles out of Minneapolis toward Mankato, 132 miles distant, was very commonplace. The road, without having many holes, was rough all over and the country traversed given over to the small farms of foreigners. The route led back by St. Paul, but over a different route from that traversed coming

into town, winding twice over the Mississippi River and through the grounds of the University of Minnesota.

At Northfield, 49 miles out, was pointed out the post office, formerly a bank, where the Jesse James' gang put up its last job and met its Waterloo. Fairbault, 64 miles out, mustered a crowd, the home for the feeble minded being the place emphasized there, as if it might come in handy for the autoists. At Owatonna, 80 miles on the way, the local automobile club had out a welcome tent, with sandwiches and hot and cold drinks. A dozen miles from Mankato, the stopping place for the night, the decorations and cheering began in earnest, particularly at the summer resorts, Madison Lake and Eagle Lake; there the telegraph poles were bound with bunting and the school bells rung. Mankato, a lively, spruce little city, was out in its best bib and tucker, with flags and electrical street decorations in fantastic shapes.

The last fifty odd miles Monday was over the first gumbo highway met. Luckily the fine, dry weather continued to-day (Monday) without a break since the Detroit preliminaries started, so that the introductory gumbo was almost as good a surface as gravel.

Fender irons and straightening a rock dent out of a pan caused the only demerits in the Glidden Cup division the first five days, while the small Detroit prize class had a clean slate. The Hower trophy class had seen the withdrawal of the McIntyre high-wheel, which never should have started on such a quest out of its element, while one each of the lowpriced Brush and Hupmobiles, both runabouts, were so loaded with penalties as to put them out of the running except for the fun of it. The other Brush had a small penalty for labor, with other demerits hanging over its The Jewel was head, but unplaced.

penalized mostly for labor, with a dash for materials and lateness. The Mason and the Maxwell No. 107 each had slight penalties, a mixture of labor and materials. Of course, with rain, there would have been a different story, but the showing on all except the low cost runabouts, was remarkable good.

The only penalty of the day in the Glidden division class was a point against the Chalmers-Detroit, imposed because of rewinding the fender that twice before had caused trouble. In the Hower trophy class the Jewel, driven by Jack Shimp, received 5.8 for labor and material in tightening the bolts on a hub flange. The Brush Company, after six days, decided that the pace was too hot for a 7 hp. runabout, and so formally withdrew, but determined to continue as non-contestants. One of its cars was heavily loaded with penalties, but the other had done fairly well to date. The Hupmobile, carrying limit penalties, also continued on a non-competitive basis, making 26 continuing in the run, against 30 starters.

Incident of the day was a row which Mitchell car occupants had with an irate Scandinavian farmer. The latter threw his pitchfork at the tourists, and the tines broke off against the steering post. The 52 miles of gumbo traversed was in tiptop shape—thanks to recent scraping and the dry weather.

FORT DODGE, Iowa, July 20.—Four cars got into the ditch on the 139-mile run between Mankato and this city, which was the second shortest of the tour, but next the hardest to date. The first 60 miles brought rather easy gumbo roads, but the minute the Minnesota line was passed trouble began. In spots the ruts were 18 inches deep, with here and there big holes deep enough to strain any axle unless unusual caution was taken.

The county commissioners evidently didn't care to lift their eyebrows for the sake of the tourists, and the travelers met with first real discourtesy by public officials so far on the route. Bancroft was passed, however, there was decided betterment. Winnebago and Alcone were the two principal places included on the list. At the latter, which is a cold water town, beer bottles from the complimentary lunch were smuggled aboard the cars wrapped up in wall paper and sacking. Chalmers-Detroit, in the Glidden tour, driven by Wm. Folger, was the only car of the four that went into the ditch to suffer much thereby. It failed to make scheduled time, getting in so late that the penalization went over a day. The Mason, Maxwell, Press and Rapid truck were also ditched, but soon escaped by being pulled out. The penalties of the day were six-hundredths on the Midland and 1.6 on the Maxwell, The latter was for repairing a water break, the former for a second broken fender iron. It was exasperating to the Midland Company to have its entry do so well generally, and yet carry through small demerits on such a detail as the mudguard. Less interest was shown in the tour here than at any other points so far, due to the presence in town of Barnum and Bailey's circus, which was attended in the evening by many tourists.

At this city the Gliddenites were initiated into living in the Pullman cars, which will be their sleeping quarters for some time. When the dust-stained and tired travelers reached here a general rush was made for a place where they could relieve themselves of some of the dirt accumulated on the trip from Mankato.

Besides the 3 x5 foot bath room on the cars, the tourists had the option of using the baths in the cellar of a local armory. Many of the men choose the latter place, and went thither with bright prospects. On arriving at the armory they discovered that the plunge was out of commission. After taking the showers they were compelled to wait some time while a search for towels was made. Such is the life of a Glidden tourist.

Council Bluffs, Iowa, July 21.—
"Devil take hindermost," was the word passed along among drivers to-day at the start of the run from Fort Dodge to this city, following from the officials the night before. Fifteen miles had been added to the schedule because of bridges closed and roads under repair. That jumped the day's mileage to 196, the stiffest so far. After Gowrie had been passed, the gumbo roads suddenly became a "slough of despond," with ruts 18 inches deep, while cars that avoided the beaten path sank like a sharp knife in green cheese.

The conditions improved with equal celerity, and, although no one believed that they would, they did hold long. Accordingly, every one opened up until most of the speedometers read nearly 50 miles an hour. Fifty miles from Fort Dodge the surface became more rolling, hills being as thick as small strawberries at the bottom of a basket. The pace was kept at from 30 to 40 miles an hour until Council Bluffs was within 20 miles, the only stop being long enough to pour in gasolene. Many of the entrants never knew their cars possessed so much speed, while country folk were delighted, for it was far more like a race than a tour. Automobile Club deserves Denison credit for building a plank road several hundred feet long over a pond of casual water, which was the only really bad place on the last hundred miles. good work done by the county officials on the roads made time possible, far beyond most sanguine predictions.

No large points were passed through, but all towns furnished crowds that became more enthusiastic as Council Bluffs was approached. Local automobile clubs sent big cars out fifty miles for escort, but they could not keep up with the pace set by the tourists, and soon fell out of sight. This city had as glad a hand for the visitors as Detroit and Minneapolis, Fort Dodge being the only place that received the visitors coldly, and that was partly because Barnum's circus was in town the same day. The cars were parked at Bayliss Park, a street being closed to them. The Elks Club opposite was turned over to the visitors, along with a free lunch. This evening there was a dinner at the Grand Hotel, a sail on Lake Manawa and fireworks and band concerts. Hundreds of members of the Omaha Automobile Club came over the Missouri River in cars. Baths at the Elks rooms were much appreciated, as facilities aboard the Pullman train are not worthy of the name. Friday night at Julesburg, the Colorado River will be the only place for washing, except the 3 x 5 foot bathroom on the cars. The tourists, however, can stand anything after the wash they had in the dirty cellar of the armory at Fort Dodge, with the plunge pool empty and towels tardy.

Six penalties on clean score cars, some of which have long been expected, came out to-night just before the plunge of the A. A. A. tourists into Nebraska. That so many entrants could cover 1,290 miles, even in fair weather, with a clear slate, has been as much a matter of wonder to date as the weather, without a drop of rain on the tourists for more than twelve days. By to-morrow night the party will be far enough beyond the Missouri River to make it doubtful if rain can seriously delay the run. That stream is naturally a climatic dividing line.

"All signs fail in a dry time." Otherwise the crowd would certainly expect to get a fine sousing more than once before the Kansas City Stock Yards come into view. The next week may give the whole contest a very different color, but it looks as if Chairman Hower did the proper caper in carrying the event beyond the Mississippi River.

The tour never attracted half as much attention before. The interest in it could hardly be keener, west of Buffalo, at least. In the very same breath it may be said that no such tour will ever be held again, namely, because it has proved too strenuous.

Because entries did not come in this year as had been hoped, partly on account of enemies that the chairman had made, there has been talk of the tour being skipped next summer, at least.

Such a course is not likely, but it is safe to say the next tour will be shaped on very different lines, with the arrangements made more definite.

To-day's run resulted in six of the cars being eliminated from the perfect score division. Three of these, the Marmon, driven by Wing; the Jewel, driven by Bernhart, and the Glide, driven by Bartholomew, are in the Glidden trophy class; another was the Premier, one of the Detroit trophy contestants, and the last two were Molines, in the Hower division of the tour.

The following penalizations were announced to-night: Glidden Trophy—Marmon, replacing gasolene tube, 8 points; Jewel, hub flange tightened, 16 points; Glide, tightening steering gear, 1.6 points; Chalmers-Detroit, 206.4. Detroit Trophy—Premier, for fixing leaky gasolene pipe, 8 points. Hower Trophy—Moline, 100, engine work, 3.1 points; Moline, 102, engine adjustment, 30.3 points; Jewel, 111, minor adjustments, 8 points.

Curtiss Aeroplane Wrecked by Novice

Some very interesting aeroplane flights were accomplished by Glen H. Curtiss, at Mineola, L. I., last week, but all experiments came to an abrupt end on Sunday, July 18, when the aeroplane was very badly damaged and Alexander Williams, a member of the Aeronautic Society, was quite seriously injured. Williams was one of the two men selected by the Aeronautic Society to learn to operate the machine, which had been purchased from Curtiss.

Following a successful flight by Mr. Curtiss, Williams was given a lesson, but he did not prove a very apt pupil. When the machine had reached a pretty good height, Williams turned the rudder the wrong way, a rapid fall to the earth being the result. The machine was nearly demolished and Williams sustained a number of broken bones.

From the instant the propeller was started it was apparent that Williams was not master of the situation. He could be seen sitting rigid, gripping tightly at the wheel, evidently in a state of tense excitement. The moment the aeroplane left the ground it began to soar upward.

Curtiss had repeatedly cautioned Williams not to attempt to make a turn but to fly straight ahead. He explained to him that if the machine started to rise he must push the wheel forward to depress it, and if it dipped down to draw the wheel toward him to elevate the planes. Turning the wheel to the right or left turns the aeroplane, the same as the action of a steering wheel in an automobile. Swerving the body to right or left automatically corrects the tilting of the machine in turning the corners.

Williams seemed to have forgotten all his instructions, for as the machine continued to soar upward he appeared to be sitting motionless. Suddenly he was seen to be twisting the wheel violently, and at the same instant the machine, obeying the action of the rudder, swerved about and began to dart downward. It swooped to the ground, first striking the forward gliding plane and smashing it, and then careened to one side and came down with a crash. Williams had not thought to shut off the motor, and that was still running, and the propeller, beating on the ground, was instantly broken.

Curtiss expects to have the machine in running order in a few days, when the trials will be resumed.

On Saturday morning, July 17, Curtiss made two trials for prizes. One was for a \$250 prize offered by Cortlandt F. Bishop, president of the Aero Club of America, and the other was for the Scientific American trophy, requiring a flight of about 25 kilometers, a distance of about 16 miles. Both prizes were won very easily. On the rial for the second prize Curtiss made a flight of 29½ miles, remaining in the air 52 minutes.

While last Sunday morning's performance was regarded as something remarkable, Mr. Curtiss surprised some of his intimate friends by stating that it was his intention very soon to make a cross country flight of considerable extent. The route he has mapped out is from Mineola to Garden City, to Westbury, and possibly a wider detour if everything is working well.

At a recent meeting of the Board of Governors of the Quincy (Ill.) Automobile Club the following were selected to act as the Laws and Ordinances Committee: J. M. Winters, chairman; S. B. Montgomery, E. C. Peter, E. N. Monroe, H. A. Williamson, J. W. Gardner, and E. M. Botsford.

Wrights At Last Get Things Going

After several weeks of work at the parade ground, Fort Myer, preparatory to the official government tests, Wilbur and Orville Wright got their aeroplane into first class working condition. On the evening of July 20, Orville, who has been doing all the flying recently. made a remarkable flight which lasted I hour 20 minutes and 45 seconds, and surpassed his American record of 74 minutes, made last year at the same place.

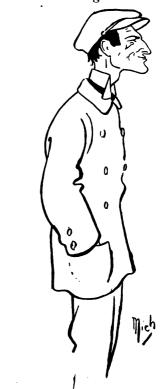
Ever since the Wright brothers commenced practice at the parade ground near Washington, they have attracted considerable attention, persons prominent in the government offices and others, gathered from all over the country. have witnessed their flights. At first. attempts to work their machine, the Dayton aviators met with many difficulties, the engine not working properly, adverse weather conditions, etc. Gradually their flights have improved, and after the flight of July 20, the brothers announced that they had their machine working as they wanted it to.

In the wonderful flight of July 20, Orville piloted the heavier-than-air machine around the parade ground eighty-three times, traveling about seventy miles and negotiating most wonderful manœuvres. At times it was estimated that the aeroplane was at a height of 300 feet, but most of the time Orville kept the machine at an average of 150 feet above the ground, making sweeping curves up and down in the air. It was declared after the flight that a speed of about forty miles an hour had been attained by the aeroplane.

The flight was made under perfect weather conditions. The aeroplane was taken from its shed shortly after 5 o'clock, but as it was about to be raised on the monorail used for starting, the rope on the weight attached to that ap-

paratus parted. The flight was postponed while two naval officers showed their hands at rope splicing, and it was not until 6:20 that the machinery was released.

When the aeroplane shot off the monorail and flew into the air it received a round of applause and automobile horn blowing from the crowd of



A FRENCH ARTIST'S IDEA OF WILBUR WRIGHT

4.000 gathered around the parade ground. Among those who witnessed the flight were three members of President Taft's Cabinet, Secretary of the Navy Meyer, Attorney-General Wickersham and Postmaster-General Hitchcock; Senators Elkins, Nixon, Beveridge, Heyburn and Kean and a score of Congressmen also were present.

When the flight first started no one knew that the aviator was after a record flight, but after Orville had been in the air twenty-five minutes many persons had their watches out ready to catch the exact time of the descent. On recent occasions when he made a flight of any duration the spectacle grew monotonous to the spectators, but it was different with the flight of July 20. The aeroplane appeared to be under perfect control and flew with a smoothness that was surprising. The circles Orville made were large and uniform in the beginning, but every now and then he brought the machine down to a smaller course and rushed rapidly through the air without going near the outer edges of the drill ground, which heretofore have marked the flight boundaries.

One of the most wonderful things Wright did with the aeroplane was to complete several figure "eight" turns. After making several more laps of the course after the "eight" turns, Orville returned safely to the ground. As on previous occasions the Wrights took their success coolly. Wilbur expressed his enthusiasm by smiling a bit. After he had talked with his brother a while he remarked: "Well, that would have taken you from here to Baltimore, or about a couple of times across the channel."

Power Boats Encounter Severe Storm

Finishing the last two hours of the race in a terrific rain storm, the first of the twelve power boats that participated in the ocean race, from Bay Ridge to Marblehead, crossed the finish line at the latter place about 6.30 P. M. on July 17, after making the 28 nautical miles run. Eight of the starters finished the race before midnight, and gladly welcomed the shelter of the Eastern Yacht Club house. The Elmo II., owned by F. D. Giles, Jr., which had a time allowance of 11 hours, 7 minutes and 30 seconds, was declared the winner, with corrected time at 25 hours, 19 minutes and 55 seconds.

The Lizzie L., owned by C. O. Lailor, with a time allowance of 7 hours, 37 minutes and 25 seconds, was second, with corrected time at 25 hours, 50 minutes and 5 seconds, and the Irene II., owned by S. W. Gradbery, the winner of last year's race, with a time allowance of 9 hours, 50 minutes and 25 seconds was third, with corrected time at 26 hours, 24 minutes. Two of the boats, the Niobe and the Barbara, had not appeared at midnight, while the Kitcinque, the scratch boat, was burned off Vine-

yard Haven on Saturday night. The Northerner quit at Gravesend Bay soon after the start, owing to engine trouble.

Fourteen boats were entered in the contest, which was under the auspices of the Crescent Athletic Club of Brooklyn, N. Y., and for cups offered by Commodore Francis M. Wilson and Fleet Captain W. H. Sykes, and other prizes, but two of them failed to appear at the starting line on Saturday morning, July 17. The race to the Marblehead light is one of the most popular affairs among vachtsmen in this section of the country. While most of the course is on the Atlantic Ocean, the race is not as severe as the one to Bermuda, and consequently receives a larger entry list. The first race to the Marblehead light under the auspices of the Crescent Club was held in 1905. In 1907 the event was won by the Picaroon, and in the following year by the Irene II. The contest is for boats of the cruising type, not less than 30 feet over all and not exceeding 40 feet over all, with a water-line breadth of not less than one-fifth the water-line length.

Practically the entire run was made



THE START FROM BAY RIDGE

over a smooth sea, and the boats made good time. The Kitcinque, the scratch boat, got a good start and was overhauling the handicap boats when, unaccountably, she took fire off Gay Head Saturday night and burned to the water's edge. The party in the boat, which comprised F. T. Gheen, of New York, the owner; M. M. Whittaker, of New York, the designer of the boat; Walter Bieling, of New York, secretary of the Motor Boat Club of America; R H. Greno, of Buffalo, an engineer; Frederick Thurber, of Providence, and C. F. Chapman, of New York, was picked up, after abandoning the boat, by a passing schooner, and landed at Vineyard Haven.

From Cape Cod to the finish line the boats were compelled to travel in a heavy electrical storm, which broke up the sea considerably, and when the boats arrived at their destination the crews were near exhaustion. The Josephine was the first boat to come across the finish line, coming in at 6.36.45., being followed an hour and a half later by the Nimrod, Sagamore and Lizzie L. It was nearly three hours later before another boat showed up, when the Irene II., Elmo II., Kittrois and Square Deal crossed the line in that order.

Philadelphia Race May Have Foreign Cars

PHILADELPHIA, Pa., July 21.—While the question of whether or not the Fairmount Park race will be open to the world or to American manufacturers only is still undecided, the Quaker City Motor Club has settled all other arrangements for the big contest in October. The plans are unique in many respects. In the first place, the charity end of the contest will take all of the grand stand receipts and the receipts from the auction sale of entrances out of the hands of the club.

The only money the club retains for its use is the entrance fees, and it has been decided to give away \$5,000 of this sum to the winning cars, divided in the following amounts: \$2,500 to the winner, \$1.250 to the second car, \$750 to the third car, \$500 to the fourth car.

The contest committee having sounded the various American manufacturers have about come to the conclusion that these men will prefer that the race be open to the world. It will be a stock chassis race.

Peerless Line for 1910

It is indicative of the supreme satisfaction which owners of Peerless cars feel in them that no changes of importance have been made in them for 1910, while the demand necessitates increased productive facilities. To furnish these new buildings have been erected each year, allowing for increased capacity, until at the beginning of the present selling season, a new group of buildings are ready for occupancy, giving a total floor area of over eight acres.

The 1910 models are three in number—two four and one six-cylinder. The latter is Model 28, made in touring and roadster form and rated at 50 hp., while Model 27 (30 hp.) is made in similar body styles; Model 29 is a 20 hp. town car, made in limousine and landaulet styles.

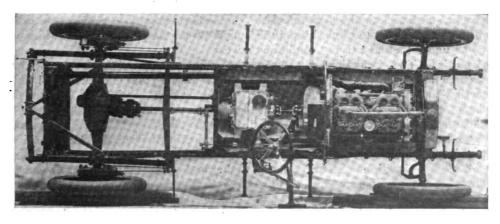
In the Models 27 and 28 the cylinders are cast in pairs with offset intake and exhaust valves on opposite sides, and are carefully bored, reamed, ground and then lapped with a special polishing preparation, with pistons and rings in place, all of which insures perfect compression. The cylinder dimensions for both models are 4%-inch bore and 5½-inch stroke. The water jackets are large and so designed that the cooled

water is taken in on the exhaust or hot side of the motor and discharged from the top over the combustion chamber. These water jackets taper so that the greatest amount of water is at the top of the cylinder, which is the point of highest temperature. A large opening over the water jackets provides for the careful and certain removal of core sand, and provides for the easy inspection of cylinder casting at any time. A brass plate covers the cylinder head and forms an outlet through which the heated water passes to the radiator.

The crank-shaft is a solid one-piece drop forging, heat treated, and ground accurately to size.

Great care is used to obtain perfectly balanced reciprocating parts, connecting rods and pistons are finished to accurately uniform weights. The crankshaft and fly-wheel are both perfectly balanced as to weight, and finally the fly-wheel is balanced under rapid rotary test on a machine built specially for the purpose.

A craburetter of new design is used, which embodies several important, improvements. The float chamber is lowered sufficiently so that gasolene is supplied under gravity feed on any grade



CHASSIS OF MODEL 27 PEERLESS

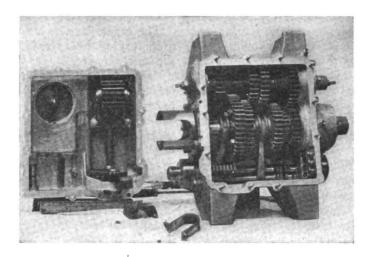
likely to be encountered, even if the gasolene tank should be practically empty. The capacity of the mixing chamber is large, which seems to provide a better mixture when the motor is throttled to slow or working under full load on hills. The carburetter is automatic in its action, providing a suitable mixture for all motor speeds.

The intake and exhaust valves are made of an improved special alloy valve steel, are taper seated, mechanically operated and interchangeable.

The radiator is the well-known Peer-

mutator, spark coil and battery may be removed entirely from the car, and there still remains a perfect magneto system of ignition; or, on the other hand, the magneto may be taken off and there is still the same well-known and thoroughly tested battery system, which has been used for many years.

The clutch is of the internal expending band type. It engages smoothly and without shock, and being light and perfectly balanced, stops rotating as soon as disengaged, so that the gears may be shifted noiselessly. This type



1910 SPEED CASE

less design (patented) of the same construction as used on the 1909 models, and is of ample size to properly cool the motor under the most trying conditions of service. The circulation of water is constant and positive. A gear-driven, herring-bone gear pump takes the cool water coming from the bottom of the radiator, forces it through the ample water jackets of the cylinders, and then back into the top of the radiator.

A double ignition system is used. There are two separate and distinct methods of ignition, even to two sets of spark plugs, so that either may be used independently; that is to say, the com-

of clutch is simple, easily understood and accessible, and in a moment's time may be adjusted for compensation in wear.

Sliding gear, selective type, four speeds forward and one reverse all controlled by a single lever. Any set of gears may be meshed without passing through other gears. The operating lever is thrown from one fixed position to another, so that there can be no mistake, and speed changes may be made noiselessly and confidently.

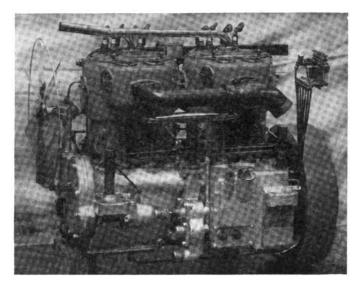
The speed case is an aluminum casting made in two parts, the base containing the main and counter-shafts

with gears, also all shifting bars and levers, as well as the mechanism for locking the gears while in mesh. The upper part holds the mechanism for clashing the reverse gear.

The reverse gear is operated by a rack, rocker arm and cam. The reverse pinion is held securely in place, and it is impossible to throw this gear into mesh

strength and good wearing qualities. The entire joint mechanism is protected from dust by a telescoping leather dust shield of entirely new and efficient design.

The weight of the rear of the car, with its proportionate load, is carried by a rear axle, consisting of three members only; the cast steel differential case



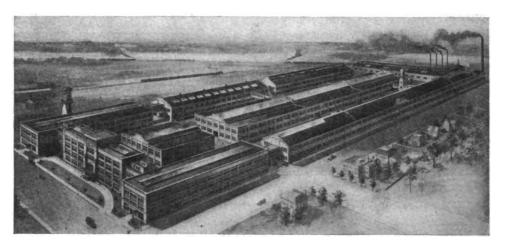
EXHAUST SIDE OF MODEL

without first throwing out the other gears.

The speed case has been advanced in its position on the sub-frame, making it possible to move the quadrant, on which the change speed and brake levers operate, slightly forward, and placing the levers in a more vertical position within easy reach of the operator.

The propeller shaft, through which the drive from the speed gears to rear axle is accomplished, fits into universal joints at either end. The shaft has been slightly lengthened, giving a more direct transmission of power to the rear axle. Crosses on each end of the shaft have not been changed and are fitted with roller bearings of large size, ample being bolted on either end to banges of the one-piece, heavy gauge steel axle tubes, which carry at their outer extremities the road wheels. These axle tubes are flared from the spring saddles toward the cast steel differential housing thus giving the axle, as a whole, the greatest possible rigidity and strength, due to the constantly increasing diameter of the tubes from either end toward the center. The power is transmitted by means of bevel gears, differential and live axle shafts operating clutch plates engaging with the wheel hubs. On each side of the driving gears and conecting with the live axle are improved universal connections.

These cardan or universal joints al-



GENERAL VIEW OF PEERLESS FACTORY

low for the arched axle construction and consequent camber and dishing of the rear wheels.

The steering mechanism is worm and gear type. The gear being a complete wheel and forged integral with the shaft, assures the greatest possible strength, besides providing more wearing surface. Self-adjusting thrust bearings of special imported type are placed above and below the worm. An 18-inch hand steering wheel is used on both new models.

The front axle is imported, solid onepiece drop forging, I-beam section with spring saddles forged integral with the axle. The center of the front axle is the lowest point of the car. The pivot point of the steering knuckles is supported on special imported ball bearings of large size. Roller bearings are used on front wheels. A one-piece connecting rod between steering knuckles is located behind the front axle so that it is guarded from all road obstruction.

The frame is cold rolled pressed steel of truss pattern, with sub-frame on which engine and transmission are carried.

Springs are imported from Lemoine, of France, and are made of an alloy

steel known as silico manganese, the best metal for the purpose known to science. The front springs are two inches and the rear side springs four inches longer than those of the 1909 car, both sets being nearly flat, highly polished and very resilient. The two rear springs are attached in front to the frame and in the rear to a platform spring, attached to the center of the rear cross member of the frame, thus making a three-point spring suspension.

Thirty-six-inch wheels, artillery type, with dished spokes, are used on both front and rear axles. The dished spoke construction best withstands any side strains, and is stronger than the ordinary straight spoke construction. Thirty-six inch by four-inch tires will be used in front and thirty-six inch by five-inch tires on the rear.

At the order of the Police Commissioner of Richmond, Va., copies of the ordinances governing the running of automobiles are being printed and distributed among owners of motor cars in that city. It is the intention of the police to strictly enforce the ordinances after August 15, particularly those regarding the numbering of cars.

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Automobile Topics Tour

Broadway and 52nd Street

New York City



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You'd certainly prefer a battery set that requires attention only once or twice in the whole season !- and that's all the

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requires. Its fundamental principle is a SCREW TOP BATTERY CELL which, without wires or binding posts, screws into a Solid Hard Rubber Plate, automatically making all connections. This Hard Rubber Plate forms a solid, substantial, waterproof cover for the Battery Box, and as all

Contacts are moulded solid into this Rubber Plate, no possible loose connections, bad contacts, trouble from dampness, or anything of this sort is possible. The Battery Cells are SUSPENDED from the Plate and do not rest on any surface where dampness can collect.

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NOTE.—Battery Cells to fit "PATTERSON" WIRELESS DRY BATTERY HOLDERS are now regularly manufactured by all prominent makers of Dry Cell Batteries throughout the country. When ordering Batteries simply specify that the "PATTERSON" SCREW TOP CELL is required in place of the old Binding Post type of cell.

Do not forget that you can use old style binding post cells if, in an emergency, "screw tops" are not at hand.

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1909 A. A. A. TOUR

Section 2-Valparaiso to Madison

From Valparaiso to Madison is the portion of the route of the 1909 A. A. A. tour covered in this week's supplement. The tourists found the going much better than from Detroit, the Wisconsin roads being surprisingly good. The details follow:

After passing Court House on left go to approach to bridge over R. R., where bear right, and at fork again bear right. Right turn, with schoolhouse on right, and at fork, short distance beyond, turn left. Follow road, taking several right and left curves through Wheeler. End of road, turn right. Turn left at end of road, and at fork after going over R. R. crossing, curve left. Right and then left curve over R. R. crossing to Hobert. Turn right at Hobert House and then follow road, taking sharp right and left turns to depot at Highlands (25.7 miles).

Straight ahead, turning left through Hessville and again straight to end of road, where turn right. Over several R. R. crossings, then left turn. At end of street

turn right on Hohman Street, Hammond (31.5 miles).

Straight ahead over a number of R. R. crossings until trolleys meet, where turn left. At fork keep right. At end of road turn right. End of street turn left, and then drive to Commercial Avenue, where turn right. Turn left on 87th Street and then right on Exchange Avenue. End of avenue turn left and at end of street turn left on 83rd Street. Enter Jackson Park, coming out mile beyond. Go along midway and enter Washington Park. At fork keep right and at next fork left. Fork, keep left, passing Washington Monument. Turn left on 33rd Street and then right on to Michigan Avenue to Auditorium Annex, Chicago (53.5 miles).

Go north on Michigan Avenue and at end bear left over bridge and then along Rush Street. Turn right on Chicago Avenue and then left on Lake Shore drive. Enter Lincoln Park, and on leaving same, bear right on Sheridan Road. Follow Sheridan Road for about 36.5 miles, going through Evanston, Kenilworth, Glencoe, Highland Park, Fort Sheridan, Lake Forest, North Chicago to

Waukegan (93.5 miles).

At cross-road turn left on North Sheridan Road, and then direct through Zion City and Winthrop Harbor. At crossroads turn right on Prairie Avenue, and at end of avenue turn left on Chicago Street. Then right on Park Place. Left on Park Avenue to Main Street,

Kenosha, Wis. (109.4 miles).

Over R. R. crossing and bridge and then with trolleys on N. Main Street and then Milwaukee Avenue. Following trolleys through Lake Shore, Racine, South Milwaukee, Cudahy, St. Francis to Wisconsin Avenue,

Milwaukee (144.7 miles).

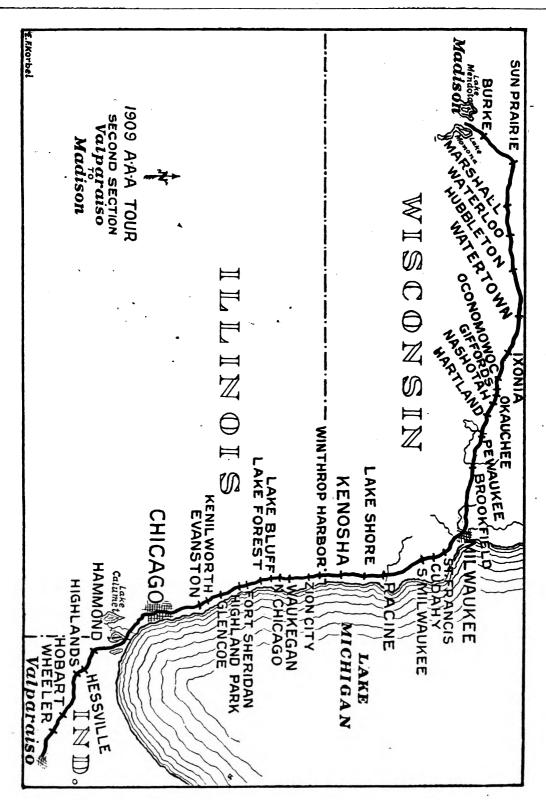
Cross bridge over Milwaukee River and along Grand Avenue. Cross bridge over Menominee River, then over R. R. bridge and bear left up hill, taking right road at fork half-way up. Direct through Brookfield. At three roads take extreme right. Fork, go left, and at next fork, after passing cross-road, go left to Pewaukee (163.9 miles).

Keep left over R. R. crossing, and at fork bear right with main line of wires. At cross-roads at Hartland turn left and then bear right at fork immediately beyond. Through Nashotah. At fork at Okauchee go left. Fork, keep right, very sharp left curve, and then right, through Giffords. Pass cross-roads, then right over R. R. bridge, and then left to Oconomowoc. At fork keep right. Then to Ixonia. Sharp left under R. R. bridge and then right. At fork keep left. Right next fork. End of road go right to Main Street, Watertown (189.9 miles).

Direct to Hubbleton. Pass through cross-road and at fork go left. Left again at fork immediately beyond. To Portland. At cross road go left, and at cross-road in Waterloo turn right. Fork, go left. End of road, turn left, and at end of this road turn right through

Marshall (209 miles).

Sharp right and up grade. Fork, go left through Sun Prairie. At fork keep left, passing Town Hall of Burke on left beyond. Keep left on Winnebago Street at fork, and at next fork left with trolley. Follow trolley along King Street, passing The Capital on right to Park Hotel, Madison (228.7 miles).



The White Line Radiator Belongs to the Stearns

Steams

THE STEARNS MOTOR CARS Belong to People Who Have the Best

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CLEVELAND, OHIO

Member Association of Licensed Automobile Manufacturers

Road Up Mt. Ranier is Opened

United States Engineer Eugene Ricksecker celebrated Independence Day by throwing open the government road in the Mt. Ranier (Wash.) National Park. Vehicles and horsemen now have an excellent thoroughfare from tidewater to Narada Falls, near the snow line in Paradise Valley.

The road could have been ready weeks ago had not heavy snows in Paradise interfered. For a brief few days last fall the road was "roughed" open to Paradise, but only one automobile went over it. Mr. Ricksecker says that automobile and wagons can now make the trip with comfort.

Worcester Club's Hill Climb Assumes Shape

Plans are being laid by the Worcester Automobile Club for the holding of a national hill-climbing contest next year, and the officers have selected a new site for the climbing contests. It is proposed to cut away a wooded section on the west side of the city and construct a paved hill. The new hill will start at

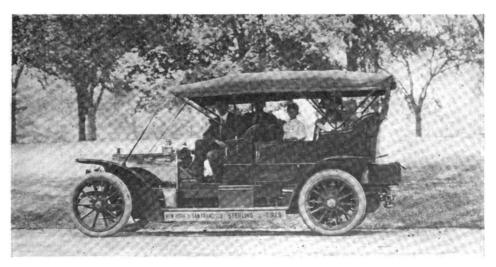
13.5 per cent. grade, then reach a 10 per cent. grade, then it increases to 24 per cent., followed by a drop to 21.17 per cent., while the finish will be a 25 per cent. grade.

A number of prominent motorists have looked over the plans and say that the hill will be an ideal one.

Road Improvement Due to Tarvia

Motorists who have recently traveled over the South Shore Road of Massachusetts have noticed quite a change in the condition of the main street in Hyannis and several streets in Hyannisport. The improved condition of the

highways is the result of Tarvia being laid on the streets. Besides the main street of Hyannis, the streets of Hyannisport have also been taken care of and that is now one of the best stretches of road on the South Shore.



L. J. LAMPKE AND FAMILY EN ROUTE FOR THE PACIFIC COAST IN A
PALMER-SINGER FOUR-FORTY CAR

Aero Exposition Opens in Germany

On Saturday, July 10, what is known as the International Air Navigation Exposition opened in Frankfort, Germany, and will continue for 100 days. It is said to be the most complete assemblage of everything pertaining to aeronautics ever seen. All types of balloons, dirigibles, triplanes, biplanes and gliders, which have been in the public eye for the past few years, are on exhibition either in the original or by means of models. The Wright brothers' aeroplane will be shown, but arrangements for flights of this machine have not vet been made. Several heavier than air machines will have their first trials during the exposition.

The exhibits are arranged in twelve groups in a hall 450x180 feet. They

embrace kites, all kinds of apparatus for balloons, scientific equipment and machinery for gas compression. Besides the main building there are four immense halls for the housing of dirigibles, which will make short trips with passengers during the exposition. Two of these are for balloons of the Parseval flexible type, another for the invention of Franz Clouth, the owner of which is Oscar Erbsloch, winner of the international cup at St. Louis. Count Zeppelin has promised to make an air trip before the exposition closes.

The committee in charge comprises aeronauts from nearly every country. Courtlandt Field Bishop, foreign representative of the Aero Club of America, represents the United States.

Seattle is to Have an Automobile Carnival

Automobilists of Seattle, Wash., propose to hold an automobile carnival during the first week of August. It will be the first event of the kind conducted in the far western city and the promoter, J. A. Hemstreet, who rode on the Acme car in the New York to Seattle contest for the M. Robert Guggenheim trophy, is sure the affair will be a success, as he has already received promises of a number of entries.

The carnival, which will last four days, will consist of a motor car parade divided into four divisions: decorative, racing, commercial and fantastic; a hill-climbing contest, a race meet at a local track, and finally a twenty-four hour event. During the last day of the carnival there will be a gymkhana at which there will be a one-mile backward race, a five-mile pick-up race, and several other amusing events.

Better Times for Boston Motorists

The new automobile laws in Massachusetts will result in Boston automobilists getting more leeway in all the parks under the supervision of the Metropolitan Park Commissioners, the improvement beginning August 1.

The former limits of ten and fifteen miles have been increased to twenty miles. The commission will also open to automobile travel on August 1 Lynn Falls Parkway in Melrose, the road on

Quincy Shore Reservation and the border road in Middlesex Falls Reservation, from Lynn Falls Parkway, Melrose, to Wyoming Avenue, Stoneham.

Also, beginning August I, the Revere Beach Reservation, which has always been closed to automobiles from 2 to II P. M., on Saturdays, Sundays and legal holidays, will be closed instead from 3 to 10.

Made 135.902 Points in Gallon Test

S. G. Averill, driving a Franklin touring car, made a new world's record when he drove his car 46.1 miles and made a score of 135,902 in the one-gallon mileage test for pleasure autobiles promoted by the Automobile Club of Buffalo, on July 7. A 20 hp. Oakland was second as far as score was concerned, having 86,612 points for 36.7 miles, while a Brush runabout was second in mileage, running 41.2 miles with a score of 58,998 points.

The cars were divided into five classes according to their selling price, as follows: Class A for cars selling at \$1,000 and under; Class B, \$1,001 to \$2,000; Class C, \$2,001 to \$3,000; Class D, \$3,001 to \$4,000, and Class E, above \$4,000. Each class was divided into two divisions, one for cars entered by manufacturers or dealers and the other for cars entered by individual owners in no way connected with the trade.

A cup emblematic of the contest was the prize of the winner, while a cup descriptively engraved and etched was also awarded to the winner of each class. The following are the winners of the different classes: Class A (professional), Reo, 35.4 miles, score 71,-366; (amateur) Reo, 28.4 miles, score 55,891. Class B (professional), Franklin, 46.1 miles, score 135,902; (amateur) Cadillac, 20.2 miles, score 68,276. Class C (professional), Rambler 19.3 miles, score 77,644; (amateur) Thomas, 16.2 miles, score 64,249. Class E (amateur), Mercedes, 16.8 miles, score 72,744.

The scores of the cars were arrived at in a similar manner to the system used by the New York Trade Association in their one gallon contest during the carnival. The actual weight of the car with passengers as weighed in at the time of the start was multiplied by the distance in miles traveled. The car with the highest score was the winner. In addition to the cups the winners will receive a certificate of performance issued by the club.

The twenty cars were sent away from the corner of Main and Goodell streets at 1 o'clock in the afternoon, and the course led to the foot of a hill a few miles east of Clarence Hollow.



PRESIDENT TAFT AND THE NEW YORK AND ATLANTA "SCOUTS" AT WASHINGTON

Reeves Talks on 1910 Conditions

After a survey of the field that was rendered possible as the result of three trips occupying altogether about six weeks, during which he visited sixtyone automobile factories, General Manager Alfred Reeves, of the American Motor Car Manufacturers Association, last week gave his views on conditions that will prevail during 1910. He repeats his recent estimate of at least 200,000 as the 1910 production, and says that while there will be no reduction in the price of the standard models, there will be more given in a motor car next year than ever before.

In other words, he says, while the price of materials has been advancing, the cost of manufacture is being reduced and the manufacturers are making refinements that will bring out better cars without advancing prices.

A general review of the plans in motor cars for 1910 would indicate that improvements for next year will be confined almost entirely to the refinement of the present successful types. In the opinion of Mr. Reeves, the time which has long been wished for when motor cars would be standard, has about arrived.

"In a general way," said Mr. Reeves, "I would say that the 1910 car will show a decided tendency toward standardiza-The wonderful advances in gas engines during the past ten years has brought the present type of automobiles almost to the perfection point, and improvements now must be almost entirely in the matter of details. While there will be some changes of models and designs by a few makers, the inclination is to improve on the present satisfactory type of motor. The future may see some radical changes in car construction, but certainly not for a couple of years. The 1910 car will see those refinements which make for silence and

simplicity in operation, increased power without increasing the size of motor, more pleasing design, greater riding comfort and lower cost.

"One of the most important changes will be the use of a longer stroke in motors. A number of makers are using the same size of cylinder, whether they be for a four or six model, which makes for standardization. Magnetos are now in universal use, some makers not even supplying a battery. High tension an low tension magnetos are used, each having its followers.

"Among other changes for next year will be larger wheels and tires, a longer wheel base, especially in the moderate-priced cars; the casting of cylinders in pairs, and sometimes en bloc; the use of shaft drive, except on a small number of very large cars or buggyabouts; the increasing use of the thermo-syphon system of cooling, and the adoption of a direct drive on third speed in transmissions where four speeds are supplied.

"Most radical of all in the way of changes relates to the placing of the steering wheel on the left-hand side, which will be followed by two of the biggest producers next year and a number of smaller ones.

"In some cases motors are being cast with the exhaust pipe included. One maker will have only one pipe running from the carburetter to the motor, doing away with the manifold. Carburetters have been refined and studied with a view of securing more power and greater distance than heretofore.

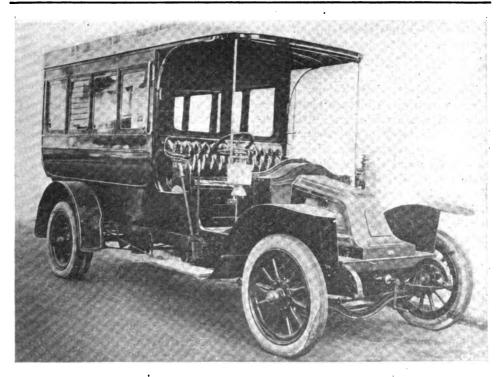
"The design of bodies will be given more attention next year, and the lines of the cars generally will be more pleasing to the eye. The use of ball or roller bearings is universal. While the fourcylinder motor continues to be the most popular, a number of big cars, and especially those of high power, will be

equipped with six-cylinder motors. While a number of the small makers have given up the six-cylinder idea, there has been an increased demand for six-cylinder cars among the big car makers, especially those who turn out the high-priced machines.

"It is a revelation to visit those factories which constitute the membership of the American Motor Car Manufacturers' Association, to see the plans, the preparations, the new buildings and the many other things that not alone indicate a great production of motor cars, but a confidence in the business and the buying ability of the American public, which should result in a record motor car year in 1910.

"While in the West I traveled a couple of days with the Glidden tourists, and I believe that the car which evolves a winner of that strenuous test can truthfully be called the champion touring car of America. A trip each day of from 150 to 200 miles over good, bad and very bad roads, at an average speed of close to 20 miles an hour, requires a car of more than ordinary quality to stand the pommelling. The tightening of a nut or the tying up of a broken fender involves a penalty which kills a perfect score, the gaining of which is the ambition of every one.

"As the hub of the automobile industry, Detroit certainly did itself proud in the line of entertaining the Glidden They were open-hearted in tourists. their care and reception of all who visited the city to see the start, and certainly the Dealers' Association, its officers and the automobile people of Detriot generally have set an example in the line of whole-souled entertainment that may be the air in future motor events."



RENAULT 'BUS FURNISHED TO HOTEL ASTOR, NEW YORK

New Features of Connecticut Law

The new automobile law in Connecticut, which caused so much discussion among motorists of the Nutmeg State, is practically the same law as that of 1907, with certain changes to strengthen it. There is a complete new scale of registration fees. Automobiles of less than 20 hp. pay \$6; from 20 to 30 hp., \$10; from 30 to 35 hp., \$15; from 35 to 40 hp., \$20; 40 hp. and above, \$30. Dealers' certificates cost \$20 and chaufeurs' licenses \$2 each.

A new method of taxing manufacturers has supplanted the straight rate of \$100 a year; it provides for a tax of \$2 per engine which is tested over Connecticut roads—this because there are engines made in Connecticut for use in automobiles not made there. It was stated during the discussion of this section that the four or five large automobile manufacturers of the State would pay from \$1,500 to \$2,000 each per year

under this plan. Mufflers may not be cut out in the day time in the cities and screaming sirens are forbidden to all but automobile fire apparatus. The new law limits non-residents to ten days' use of the State's highways in any one year.

Joy riders who take out machines without permission of the owner and those who offend regarding licenses, markers, lights, brakes and so on are subject to a fine of \$100 or ten days' imprisonment or both, and the penalty for reckless driving, operating while under the influence of liquor, etc., is increased to \$500 or one year's imprisonment for the first offense, and for the second offense, imprisonment of from six months to two years. A chauffeur's license which has been revoked by the secretary of State must stav revoked for two years. The secretary may also revoke the registration certificate of an automobile.

Iowa Motorists Plan Big Run

The members of the Council Bluffs (Ia.) Automobile Club are planning a very active fall campaign. Plans are being made for a big endurance contest between teams from Sioux City. Des Moines and Council Bluffs, for a State automobile carnival, to be held in Council Bluffs next fall, for a series of endurance contests between local owners, and for the construction of an automobile race track.

One of the most important events planned by the local association is a three-days' endurance run, starting from Council Bluffs, on Saturday, September 4, and making a day's run to Des Moines. Sunday the tour will be continued to Sioux City, and Monday. which will be Labor Day and a holiday, the last leg of the course will be run from Sioux City to Council Bluffs.

The plan is to have the run scored by teams instead of individuals, the winning team to retain possession of a \$200 cup offered to the winner, for one year, and permanently after winning three times.

Western New York Club Holds a Run

The members of the Geneva (N. Y.) Automobile Club, one of the most active motoring organization in western New York, recently held a club run which was enjoyed by about sixty members of the association. The route of the run included the towns of Phelps, Newark, Palmyra and Canandaigua. At the latter place dinner was served, and the return trip made late in the afternoon. A number of motorists from Newark, N. Y., visited the Geneva club on July 8.

PREVENTIVES AND REMEDIES

When anything goes wrong with a car the best plan is to carefully consider the possibilities by first turning the situation over in the mind, and after having arrived at the most plausible cause for the trouble, proceed to prove the diagnosis. often motorists who are of a nervous temperament start in and test every feature that may in some way be directly or indirectly connected with the symptoms. The successful trouble-hunters are those who pursue the former course. There are many known cases where an entire ignition system has been overhauled to eliminate a miss that was caused from loss of compression; an entire set of bearings examined to locate a knock which was the result of pre-ignition; an entire set of valves ground in to recover lost compression that was caused by a defective valve cage gasket.

Some of the more common causes for the overheating of gasolene motors are: Too little lift to exhaust valve; too small exhaust port; late spark; overfeed of gasolene and back pressure from silencer. Among these perhaps the late spark should have more than passing mention, as it is a real cause for loss of power, which might otherwise be enjoyed at no additional cost whatever; it is also a promoter of noisy exhaust; so, taken altogether, unnecessarily late ignition is a bad practice and should be avoided.

In filling the radiator it is a good plan to allow enough water to pass in to bring the level over the end of the vent pipe. If this pipe is clear, as it always should be, the fact will be indicated by the overflowing of the water through it. If it is not clear the water will overflow through the filter cap and not the vent pipe, and it should be attended to at once.

When the trouble merely consists of misfiring in one or more cylinders, even an amateur may quickly find and apply a remedy. First, discover the troublesome cylinder or cylinders; short-circuiting the plug terminal on to the cylinder head by laying the blade of a wood-handled screwdriver in contact with both, while the engine is running, is a simple expedient in the absence of a switchboard or switch plugs, or, if the high tension wires to the distributer have plug joints, each wire may be detached from the distributer in turn. On tracing the faulty cylinder, begin by taking out its plug, setting the points by a gauge, if one is handy, or otherwise as close as they will go without actually touching; if necessary, clean the plug head thoroughly with a knife, gasolene and brush. If this does not cure, charge the plug. If this does not cure, the fault will be in the wire from the distributer, provided the misfiring came on suddenly and was pronounced in character. If the miss be gradual, irregular and only faintly discernible, the fault may lie in the segment of the distributer disc which supplies current to this particular cylinder. In this case, attention is best postponed till a repair shop is reached, as probably the metal segment has worn, or the insulation around it has worn, and the whole will need refacing, in a lathe.

When fitting a new exhaust valve—especially if it has a long stem, and everything cold—care should be taken to see that there is sufficient clearance between the end of the stem and the tappet or push rod. If too little clearance is allowed when the parts are cold, the expansion due to the heat when the engine is working may be sufficient to lengthen the valve stem so much that it will rest on the end of the tappet, and so prevent the valve from seating properly, causing a loss of power.

As considerable time is required for the water to pass down through some radiators in which the passages are small, it is well, after the water has overflowed at the cap in filling, to turn the motor by hand a few times and then try if more water can be added. If the radiator really is not filled when the first overflowing takes place, overheating may result.

In order to prevent injury to spare spark plugs carried in the tool box or other part of the car they may be slipped within a length of one inch rubber hose. Waste may be used to close up the ends and to keep the plugs from working out.

C L U B S

So rapid has been the growth of the Automobile Club of Southern California that it has found it necessary to establish a permanent club headquarters. The directors have secured a lease on the ground floor rooms at 323 South Hill Street, Los Angeles, and have had them fitted up as a business headquarters. The duties of secretary, which have hitherto been cared for by Charles B. Hopper without remuneration will be in the hands of Cotton A. Smith at the new headquarters, who has been engaged as assistant secretary. The club is just now carrying out a campaign for erecting signs in that portion of Riverside County hitherto unmarked, and the board of supervisors of Riverside have contributed \$1,000, to be added to a like amount from the club, for the purpose of marking the roads through the Santa Ana Canyon and around Perris, Hemet, San Jacinto, Redlands, etc. Leonard F. Block, who has been in the service of the club for some time, has been appointed superintendent of highways, and will spend the most of his time in going over the country roads for the purpose of making temporary repairs and looking after the upkeep of the club's signs.

The first number of the Columbus Automobile Club Bulletin has been issued. Among other interesting things the Bulletin contains a two days' tour of Central Ohio. An announcement is made that a similar map will be published in every issue.

Members of the New Jersey Automobile and Motor Club were the guests on Thursday evening. July 15, at a testimonial dinner given by Carl J. Schweitzer, at the Newark club house on Park Place. Covers were laid for seventy-nine, and the affair proved highly successful. topics, of course, ruled supreme and the doings of the autoists as well as means of furthering their interests were discussed in an informal way. The club's officers were seated at the main table, which was presided over by President W. Clive Crosby. The centre-piece on the table represented a marine scene, surmounted by six white dolphins and mermaids, who held within their grasp various cups and trophies which have been awarded to the club. Broad silk sashes extending from the chandeliers, suspended miniature flying machines and automobiles.

A new road, of less grade than the present one, up Giant's Despair Mountain, is being projected by the Wilkesbarre Automobile Club. There have been several accidents to cars going down the mountain and the club members are interested in a project to open a safety runway at the bottom of the steep portion of road, so that a driver who had trouble with the brakes of his car could guide the machine onto a stretch of sand that would soon stop its progress and reduce the chances of injury to a minimum.

Members of the Automobile Club of Philadelphia have been warned that speed traps have been established in New Jersey at Mercerville, near Trenton, and at Deal Beach, and in Pennsylvania at Langhorne.

Applications for active membership in the Automobile Club of America have been received by the Membership Committee as follows. Earl C. Bacon, of Brooklyn; Louis J. Ehret, Arthur H. Hearn, Felix E. Kahn, Richard Merton, Major-Gen. Chas. E. Roe, Alex D. Shaw and Paul A. Sorg, all of New York City. Applications for associate or non-resident membership have been made by Henry M. Atkinson, Atlanta; Leon Auscher, Paris, France; J. A. G. Carson, Savannah, and J. Herbert Foster, Providence.

The North Wildwood (N. J.) Automobile Club has just been organized with the following officers: President, W. Wayne Davis, Philadelphia; vice-president, Harry C. Wheaton, Mayor of North Wildwood; treasurer, William C. Richardson. Hotel Hanover, Philadelphia; secretary. William E. Grove, city clerk of North Wildwood; trustees, H. H. Ottens, Harry H. Hoffman, William E. Grove, H. C. Wheaton and J. C. Winters, of New Jersey; William C. Richardson, E. W. Omestetter, W. Fountain and W. Wayne Davis, of Philadelphia. Negotiations are being made for the purchase of a club house in North Wildwood. It is also arranged for winter quarters and club rooms at the Hotel Hanover, Philadelphia. As soon as all arrangements are completed the new club intends to hold an open house.

AUTOMOBILE SPORTS

Arrangements are being made by the Motor Club of Harrisburg, Pa., for the holding of what will be known as a sociability run, on July 31. The event will be open to members of the organization. Meals, of Harrisburg, will be requested to prepare the secret time schedule for the event. The total mileage of the run will be 52.6 miles and Mount Holly will be the destination. The trip to Mount Holly will be made by a roundabout route, the distance to be covered being 28.7 miles and the distance of the return trip will be 24 miles. J. Clyde Myton, secretary of the club, and William R. Douglass, chairman of the contest committee, have laid out the routes for the going and return trips and have arranged for the tourists to drive through Boiling Springs Park on the way to Mount Holly. The cars will be started from Harrisburg at 10 o'clock in the morning, with intervals of two minutes between each starter so as to avoid the dust nuisance.

Members of the Boston Motor Club are talking of holding a 24-hour race at Readville track some time in September.

The Upper Westchester Automobile Club of Ossining, N. Y.. held a meeting last week, when plans for a unique run were discussed. A course 30 miles long will be laid out in Westchester County for the run. A scout car will be sent out and will be run at a uniform rate of 15 miles an hour. This will place five controls, the locations of which will not be announced to the contestants, and the time of the scout in traveling between them will be taken. The contesting cars will be sent out on their journey, and the one whose average time is nearest to that established by the scout will be declared the winner.

The Motor Car Racing Association of Maryland has decided to postpone the twenty-four-hour race which had been scheduled for July 16 and 17 on the Bennings track at Washington to September 10 and 11. The change in the dates was made because many of the automobilists of Baltimore and Washington told the racing association officials they would be away from their homes this month. Six

short-distance events for stock cars will be run before the twenty-four-hour contest is started.

A decorated automobile parade will be one of the most important features of the second annual Colorado Inter-State Fair and Exposition, which will be held at Overland Park, Denver, the third week in September. The automobiles will parade throught the wide stretch of the mile track in front of the grand stand on the afternoon of the closing day, Saturday. September 18.

The Columbus (O.) Automobile Club is planning to hold a track race meet some time in September. The principal event on the program will be a 24-hour race.

The Lorraine (France) Automobile Club recently conducted a series of speed trials comprising tests over a kilometer, with a flying start, on the level just by the village of Essy, and a hill climb up a 9 per cent. gradient I kilom. long at the Avenue de Boufflers. In both events the best performance was made by Hallut on his Mors racing car, his time for the hill being 48s. and for the level kilom. 29s., and Mathis on a 30 hp. Fiat was next, his combined time for the two events being 1m. 174-5s. There were a very large number of competitors in the various classes, and the class winners were Bocquillon (Delage), Drouville (Lorraine - Dietrich), (Peugeot), Moreau (La Buire), Bargon (Piccard-Pictet), Mathis (Fiat), Chateau Thierry (Peugeot), Lefevre (Brasier), in the touring classes, and Goux (Lion Peugeot), Perrin (Lorraine-Dietrich), Closse (Piccard-Pictet), Mathis (Fiat), and Hallue (Mors) in the racing car classes.

The opening of the Agricultural Automobile Exhibition, which was to have been held at Amiens, France, during July, has just been postponed till September, when it will be opened on the 16th and closed on the 28th.

The Automobile Club Vanclusien has fixed September 4 and 5 as the dates for its annual hill-climbing competition up Mont Ventoux.

HIGHWAYS

A public meeting was held in San Diego, Cal., a few days ago to formulate a campaign in behalf of the proposed good roads bond issue of \$1,250,000 to be voted upon August 8 by the residents of San Diego County. Of the large crowd that attended, representing every section of the county, not a dissenting voice was heard when objections to the plan were called for. It was pointed out that the bonds will not cost the taxpayers more than \$59,000 a year, and that money will be saved to the county, which has been spending more than that amount in general highway repairs. That San Diego expects to gain great prestige through its good roads when they are built, was indicated by the remarks of A. G. Spalding, a member of the Highway Commission, who said: "For vears Los Angeles has been considered the gateway to Southern California. There was a time when I thought so myself, but after coming to San Diego I changed my mind. We have here a magnificent back country. I have traveled extensively all over the world, and have seen the combination of Switzerland's mountains and the Riviera on the Mediterranean. have here a country that far outstrips those far-famed pleasure resorts. What we need is good roads to give the people an opportunity to get out and see what we have in our magnificent back country. Affairs are so shaping themselves that San Diego will soon become the gateway, instead of Los Angeles. The days of parks are passing. They have magnificent parks in the East, far better than we have here. People no longer care for parks. They long to go out in the open country in their machines. We have the country here, and now we must make the roads."

Among the bills now pending in the Georgia Legislature is one which provides for a State Road Commission, consisting of an expert road commissioner at a salary of \$3,000, with an assistant, also an expert. at \$1,800. It is also provided that engineers in the employ of the State, at its various institutions, shall be subject to duty under the commissioner when not otherwise engaged, and without extra compensation, except their traveling expenses. It is provided that a State road fund shall

be created from all the taxes collected from automobiles, and that the expenses of the State Road Commission shall be paid out of this fund.

The Long Island Automobile Club's good roads committee, consisting of Charles Jerome Edwards, chairman; Cleveland Litchfield and Louis T. Weiss, has placed at different points on the north shore roads from Oyster Bay and Jericho to Greenport 200 more signs giving the mileage and directions to and from various points. This makes over 1,000 signs that the club has put up on the island, giving very material aid to automobilists in general in reaching their destination.

At a good roads meeting held at Meriwether, White Sulphur Springs, Ga., a few weeks ago, for the purpose of discussing the proposed road from Atlanta to Columbus, former Governor Joseph M. Terrell. who acted as chairman of the meeting, was authorized to appoint a committee of five from each county traversed by the proposed route, to take up the matter and work out the details. The committees have been named as follows: From Muscogee-Frank U. Garrard, chairman of entire committee; Frank G. Lumpkin, R. Curtis Jordan, W. L. Lott and Henry Spang. From Harris-G. N. Murrah and W. F. Key, of Chipley; J. B. Burnsides and J. H. Mobley, of Hamilton; J. W. Thompson, of Pataula. From Meriwether-Chas. L. Davis, of Warm Springs; H. H. Tigner, of Odessadale; N. W. Parham and A. M. Hill, of Greenville, and Dr. J. W. Taylor, of Lutherville. From Coweta—T. M. Zellers and S. E. Leigh, of Grantville; Hon. J. R. McCollum, of Newman, State Senator; Chairman H. C. Glover, of the Coweta County Cimmissioners, and Hal Fisher, of Newman. From Campbell-Dr. H. L. Johnson, of Palmetto: Chairman E. G. Hammond, of the Campbell County Commissioners; Mayor D. A. Carmichael, of Union City; Major John T. Longino and Mr. Roberts, of Fairburn.

The Kenton (O.) Automobile Club has asked the county commissioners of Hardin County for permission to select a stretch of road in the county which will be improved under the direction and at the cost of the club. It it proposed to improve at least four miles of pike in that manner.

AERONAUTICS

That a genuine interest is being taken in aeronautics from a sportsman's point of view, is evidenced by the fact that two members of the Aero Club of America Russell A. have purchased aeroplanes. Alger, of Detroit, was the first to contract for a Wright machine, and A. P. Warner bought one of the Herring-Curtiss type. Both machines will probably be tested on the Long Island ground. Glenn H. Curtiss, the inventor, is an enthusiast in the belief that the aeroplane will find rapid favor with the keen sportsman. lightning express rate of speed," said Mr. Curtiss, "affords a spice of danger that appeals to the sportsman. Men will go in for aeroplaning as they do for automobile speeding. Of course, the use of the aeroplane will be confined to the country, as in its present state of development it could not with safety sail over skyscrapers. It is a mistake to think that a man must have a scientific knowledge of air currents in order to learn to ride it. Any one who has activity enough to balance on a motorcycle can learn the control of a flying machine. The beginner should start by flying close to the ground and should not attempt to make a turn before he has made twelve or fifteen flights. After he becomes familiar with the machine it does not require that steady attention, and the aviator may study the effect of the surfaces on the air. After he has got perfect control of the aeroplane he may go in for conquering height. The sensation of rising and falling is interesting. The height experienced from an aeroplane is unlike that felt in looking down from a tall building; there is not that dizzy feeling or desire to jump. As the machine ascends there is a sensation that the earth is dropping away from you, and in descending that the earth is coming toward you. The varying sensations will appeal to the novice who is always ready for a new experience. The hope of conquering the air lies in making the aeroplane popular for sport. I believe the coming year will see many aeroplanes in use for this purpose.'

It is said that Christmas toys this year will reflect in many forms the general interest that has attached during the last few months to attempts at navigating the air. Samples are now being shown by importers' agents. One of the novelties is an aerial policeman mounted on an aeroplane, with dangling legs, in his movable right arm a drawn sword and his left arm stiffly extended in the direction of the malefactor he has spotted. The policeman is a favorite figure and in the toys this year he will be found following and bestriding aeroplanes and airships.

Trials are soon to be carried out with a new bi-plane built by the Chevalier Louis de Lamine, of Andoumont, Belgium.

Herbert Latham, the European aviator, who made a sensational, but unsuccessful, attempt to fly across the English Channel this week, considers that if the monaplane does not surpass the bi-plane, it at least equals it in the points of stability and safety. "It is impossible, for instance, to relax one's hold on the levers in any type of bi-plane." he says, "whereas it is quite an easy feat on certain monoplanes, and one that can be continued for quite a long space of time." He adds that, "as many have accused me of imprudence, I wish to insist upon the extraordinary safety of the Antoinette flying machine. The wings can carry an enormous weight on any point without giving way, and they are strengthened by stout halyards. The rudders and the propeller are all calculated to resist an effort considerably greater than any they can possibly be called upon to withstand. and yet if anything gave way the balance of the machine would not materially change. I could at the worst glide without difficulty to the earth. As for the driver, he is protected in any case. Though I have smashed my machine many a time, and expect to do so again before I gain complete mastery over it. I have never had the slightest bruise or scratch. Everything has to be broken to pieces before the man at the wheel suffers, and it is hard to conceive how such a complete wreck could take place. One thing I thought best to guard against-splinters-for they run through cushions and skins like needles. I had a strong canvas suit made of the cloth employed for fencing jackets, and now consider the risks of an accident to myself as being reduced to a minimum."

Some Observations on the Prince Henry Contest

Of the 113 cars entered for the Prince Henry of Prussia touring competition, 108 came up to the starting line before 5 o'clock on the morning of June 10, says a writer in the Royal Automobile Club Journal. A scrutiny of the programme showed that the competition was likely to be very keen between three makes of cars, namely: the Opel, of which thirteen examples were entered; the nine Benz, and the eight Mercedes; while there were five Metallurgiques, three Fiats, and three Austrian Daimlers. As the competition progressed the rivalry between the Opel and the Benz teams became more and more intense. Of the thirteen Opel cars eight were of precisely the same horsepower, having a cylinder bore of 110 mm. and a stroke of 150 mm., while five of the Benz cars were 80 mm. by 120 mm., and seven of the Mercedes were 90 mm. by 140 mm.

The organizers are great believers in early rising and early starting. 348 kilometers to cover the first day, including a speed trial, the word "Go" was given for the first car at 5 A. M. A stop was made at Gubenfor, a speed trial on the level, the distance being 61/2 kilometers, which was timed as well with the R. A. C. electrical timing apparatus as by hand. As the cars were sent over that distance at two minute intervals the competition occupied considerable time. The weather, however, was perfect, and though the road chosen for the competition was some miles from Guben, there was a very large gathering of spectators. The whole of the journey from Berlin to Breslau was on good roads, and mostly through fine country, especially in Silesia, where there are many large shooting estates. Having arrived at the speed trial grounds first, but not leaving until after the last car was timed, owing to my host being the principal official, we had to endeavor to make up time. This, however, we failed to do, as we ran out of gasolene between Neusalz and Luben, the nearest point at which it was obtainable being 10 kilometers distant. This caused a delay of upward of two hours. Consequently Breslau was not reached until 7 in the evening.

The next day's objective was Tatra-Lomnicz, a stage of 409 kilometers. In order to cover so long a distance a start was made at 4 A. M. The early rising involved, however, was amply compensated for by the very beautiful country traversed. The difficulties of the frontier were quickly overcome, as officials had been sent forward, so that when each car arrived it was quickly passed over the line into Austria. Though the country was fine and the scenery beautiful, the road in Austria was the very worst that it has ever been my fortune to travel over. It was nothing but a series of bumps and deep ruts. But to make up for this the route was absolutely clear of traffic. On crossing the frontier into Hungary the road was excellent, it having been newly made specially for the competition. That is to say, the Hungarian Automobile Club seized the opportunity for impressing on the authorities the absolute necessity for making a good road, which, one of them informed me, they probably would not have had for another twenty years had they not had such an excellent excuse for bringing pressure to bear. The villages in Hungary are large and far apart. While the roads in the open country were clear, the streets of the villages were lined with people in their gala national costumes. Practically every house had a flag flying from it. The school children were drawn up in line and cheered each car as it passed, shouting "Elljen." When within an hour of our day's destination very heavy rain fell, which was disappointing, as Tatra-Lomnicz is situated in the very heart of the Carpathian Mountains, and with the clouds low, much of the beautiful scenery was blotted out. We arrived at 6 o'clock to find that our rooms at the hotel had been seized on by others, partly, I think because the Czar of Bulgaria, with a small suite, had unexpectedly turned up. We found some rooms, however, in a hotel which was expected to be opened in a month, and despite the smell of paint and so forth, found everything comfortable. Tatra-Lomnicz consists of a railway station and a hotel, situated high up in the pineclad mountains overlooking a magnificent valley.

The third day's run to Budapest seemed short in comparison, being only 315 kilometers, but by way of compensation an altitude of 3,500 feet had to be attained before dropping down to the level of the Danube, and running on The road over the into Budapest. mountains is splendidly engineered, the gradients being comparatively easy, while none of the corners are worse than the well-known hairpin corner in the Isle of Man. An interesting episode was that on reaching the summit a triumphal arch had been erected across the road. The structure was decorated with bears, wild boar, stags' heads, wild goats, lynx, and so forth, all shot on the estate of Count Geza Andrassy, the owner of the property. He has at this altitude a most beautiful log-built shooting lodge, which, though more than 100 miles from Budapest, and seven miles from the nearest village, is equipped with all manner of modern conveniences, including a telephone. The loghouse is composed of about thirty rooms with bathrooms and hot and cold water, and lacks nothing in the way of com-The scenery among the mountains, which are thickly wooded, is exceptionally beautiful, As it was a brilliant day, the pleasure of the drive was very greatly enhanced. In descending the mountain a wild boar ran across the road about fifty yards ahead of the car, and stag and roe deer innumerable were seen from time to time. road throughout the day was excellent. On reaching the Danube the perfectly level run into Budapest was accomplished at a very rapid pace. The Hotel Hungaria, in Budapest, was our home for the next two nights, as it had been arranged to stop there the whole of Sunday. One would have liked to stay there several days, as there is much to see that is of great interest. only difficulty is that the Hungarian language is spoken nowhere else, and, except by the upper classes, German is never used. It is not my intention to describe Budapest, as that would occupy a great deal of space; but it must be recorded that the welcome to the competitors and those accompanying them was a warm and hearty one, and the official banquet, to which over 300 people sat down, was a memorable function.

The start was made for Vienna on the Monday morning with only 263 kilometers to cover. So long as the road was in Hungary it left nothing to be desired. In fact, it was excellent throughout. The Danube was touched occasionally for short stretches, but we journeyed principally over a plain—the grain-growing district of Hungary. On leaving that country and entering Austria we came to where an arch had been set up across the road. The inscription on it was interpreted as: "We hope to see you back again." Nothing could have been more charming than the welcome accorded to all the competitors in Hungary. Apparently the people did not object to taking a holiday nor to not being allowed to use their roads for a given period during the day. It did not seem to be necessary to police the highways. One met very few constables,

and in no instance, even in villages, was the slightest obstruction encountered. On crossing into Austria, though the roads were not quite so bad as on the second day, they left much to be desired. As there had not been rain for several days, the dust was very bad. On arriving in Vienna a most hearty welcome was accorded the motorists by the Archduke Leopold Salvator (the president), the officers of the Austrian Automobile Club, and others. Two nights were spent in Vienna, then the start was made at 6 o'clock next morning for Salzburg, a short journey of 304 kilometers. The Danube was followed for some distance, and the road winds mostly through forests. Hereabout we passed over the best surfaces of any traversed in Austria. Salzburg is in the Austrian Tyrol, being beautifully situated in a valley with high mountains all round. Unfortunately, it was not possible to keep the cars there for a couple of days that excursions into the mountains might be made, for there is much of interest, and all is beautiful that is to be seen from Salzburg. The town itself has over forty churches, three or four monasteries. most of them being of great historical interest.

The final run to Munich was a stage of only 202 kilometers. As on the first day, so on the last, there was a speed trial over 6½ kilometers. The time was again taken by the Royal Automobile Club electrical timing apparatus, which had been lent for the purpose. The speed trials took place in Forstenrieder Park, which is only ten miles from Munich. Consequently there was a very large concourse of onlookers. Of the 93 cars which were still in the competition at Salzburg, 91 took part in the speed trials. The competition was well organized throughout, the rules were strictly adhered to, and the protests were few. An official car was

started ten minutes ahead of the first competing car, and no one might pass No competing car was allowed to pass another car except with the consent of the observer, and then only if the car was not capable of traveling at the regulation speed of 45 kilometres, otherwise 30 miles an hour. In Austria and Hungary that speed was reduced to 35 kilometres an hour. It is interesting to note, too, that no passing under any other circumstances took place; also that there was very little under the regulations. The management of competitions in Germany differ somewhat from those organized in the British Isles in that the observers never change They consist of officers in the German army, and, in this case, as part of the competition was held in Austria and part in Hungary, of Austrian and Hungarian officers. One feature of the organization which was particularly striking was that of the four organizations interested—namely, the German, the Austrian, the Hungarian and the Bavarian Automobile Clubs—as the cars came into the respective countries the management was taken over by the club of the country. No friction of any kind was observable. In fact, the competition was run with the utmost smoothness and amiability. Two committee meetings were held during the contest, one in Budapest and one in Vienna, at which meetings the protests and irregularities which had occurred were dealt with.

The final meeting was held in Munich on the Friday, the day after the arrival there. In the evening the results were announced, and the prizes were given away. Taken all around, it may be said that the Prince Henry of Prussia trophy competition was a great success this year, that the cars showed merit, that the management was good, and that the route chosen was one that it would be a pleasure to travel over at any time.

Mitchell Motorists Make Merry at San Jose

The town of San Jose, Cal., was practically given over to the owners of Mitchell cars recently. The occasion was the third annual jubilee of these fortunate ones, and the owners of more than 500 cars, with their families and friends, were in attendance to make the affair the most successful of all.

A great programme of car trials, races and a hill climb had been acranged, and in the evening the motorists were given a banquet by the Mitchell Motor Car Company.

The races and hill climb attracted a great deal of attention, because many women entered the contests and proved that they could handle the cars practically as well as men. In the hill climb especially a number of women went along as passengers, W. H. P. Hill, of Pacific Grove, one of the prize winners, being accompanied by his wife.

Miss Marion Walcott, of San Francisco, won first prize in the women's class in 1:194-5, duplicating her victory of last year. Mrs. F. W. Kettle-

man, of Stockton, was second, and Mrs. W. H. P. Hill third.

In the touring class for old models everything previous to 1909, L. P. Brassey won in 1.06, with J. Ghiradelli, of Oakland, second, and E. P. Lion, of San Jose, third.

In the runabout class, old models, Newell Forest, of Oakland, won in 1.23 4-5, with C. E. Anderson, of San Francisco, second, and J. W. Winn, of Oakland, third.

In the professional class, W. D. Davis of Oakland won in 1.13 1-5, with R. L. Skinner, of Sacramento second, and Oscar Omen third. The handling of the hill-climb was most perfect, details being carried out by President William Mitchell Lewis and G. Vernon Rogers, of the Mitchell Motor Car Company, assisted by A. E. Hunter and George Olsen, agents for Mitchell cars in northern California. The judges were A. H. Martin, Dr. J. L. Benepe and George B. Polhemus, officials and members of the Santa Clara County Automobile Association.

What the Automobile is Doing for Michigan

GRAND RAPIDS. Mich., July 19.— What the automobile is doing for Michigan is revealed in a talk which an AUTOMOBILE TOPICS man recently had with the traveling freight agent of a Michigan railway:

"The roads are not worrying about business in the fall except as to how it is to be moved," he said. "One of the biggest items with us is the providing of cars fast enough to carry the automobile shipments. There will be 39,000 motor cars sent out from the automobile manufacturing centers of Michigan this year. Two runabouts and one touring car make the load for each freight car.

"The automobile business is to-day

making three Michigan towns, Flint, Jackson and Lansing, and it has also shoved Detroit very far to the front. It has been about the biggest thing for the State since lumbering was at its height."

This is straight talk from a man who knows, and in the case of Flint, it is but officially voicing general knowledge. That town before the opening of the big Buick plant had several very prosperous and growing industries, and probably about 16,000 population. Since the entry of the big motor works, it has jumped to fully 25,000, and will go forward at least 10,000 more when there is house accommodation for families of present workers.

Producing Silent-Running Engines

A problem on which the engineers of the Association of Licensed Automobile Manufacturers have, with unparalleled success, spent a good deal of study and experimentation is that of making quietrunning gas engines for the cars of the A. L. A. M. members.

Some of the principal causes of timing-gear noises are inaccurate machine work on the crank-case, causing too wide variation in the distance between gear centers; unsuitable crank-shaft and cam-shaft bearings, causing jumping of the shafts when the motor is running; inaccurately spaced and poorly designed gears, causing warping after the strain of cutting the teeth is removed. The utmost care must be taken in fitting up cam gears, and sometimes one or two of the gears may be changed to good advantage, even though they are apparently the same size and shape.

The chief cause of noise in timing gears is the uneven or intermittent load due to the lifting action of the cams, causing intermittent pressure on the teeth, due to backlash. There are a number of points to be taken into consideration in ameliorating this condition, such as reducing the weight of the valve mechanism, proper tension of the valve springs, the use of suitable relatively non-resonant material, shaping

cams to give soft action to the valve plungers, proper pitch and lubrication of gears, and amount of permissible backlash.

Noise from pistons, connecting-rods and crankshafts has been practically eliminated by good, accurate work and bearings, and proper lubrication and clearance between the pistons and cylinders. All pistons and connecting-rods must be of equal weight and as light as possible.

The crank-shaft must not be too light; undue side-play of connecting-rods must be avoided.

The principal cause of valve noise is allowing the valve to slap on its seat. The descent of the valve should be suddenly arrested just before it strikes its seat, either by a slight rise in the cam or by a very gradual taper. The valve spring should be of sufficient strength to keep the roller in contact with the cam. One leading experimenter says that in proper design the sound produced by the seating of the valve cannot be heard outside the motor with the manifolds, carburetter and muffler connected. The weight of valve necessary to give the best result is a matter for mature consideration. The thickness of wall and shape of the manifold are also important.

Off for a 'Round-the-World Tour

An informal "bon voyage" luncheon was given to Mrs. Harriet Clark Fisher, of Trenton, N. J., Friday, July 18, on the eve of her departure for France. It was served at the Automobile Club of America.

Mrs. Fisher will make a tour around the world in a 40 hp. Locomobile, and will probably require eighteen months for the undertaking. She will be accompanied by Harold Fisher Brooks, her private secretary, and several servants. Mrs. Fisher's itinerary will lead her through Spain, Egypt, Australia, and Japan, and the homeward trip will bring her across the Pacific to San Francisco and then eastward.

While at her summer home, the Villa Carlotta. on Lake Como, Italy, next month, the fair Trenton motorist will pilot her American yacht Carlotta in the power boat races.

Don't Keep to the Middle of the Road

A county supervisor of North Carolina protests against the habit which many motorists have of doing the majority of their driving on the crown or centre of the road. This method of driving means that one portion of the road takes all the wear, and naturally, of course, gets worn into ruts and ridges.

If the traffic would spread itself and make all that portion of the road from gutter to the top of the crown take a share of the wear, road surfaces would last much longer, he declares, and would require less frequent repair. In these days when roads are made almost flat there is no excuse for this habit of clinging to the crown, but where roads are made with a great deal of camber it is perhaps excusable, as driving on a continuous slope is the reverse of pleasant.

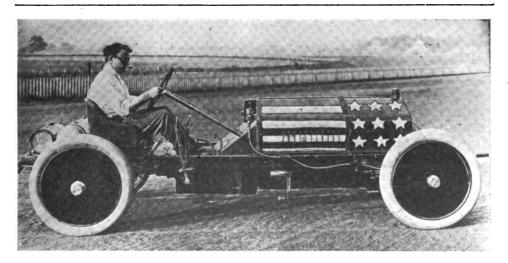
How to Spend That \$1,000,000

The good roads committee of the Automobile Club of Minneapolis, Minn. is considering the advisability of calling a mass meeting of citizens interested in the question of building permanent thoroughfares in Hennepin County under the million dollar bond issue authorized by the Legislature.

At present the committee is disposed to await the result of the Eastern trip of the county commissioners, and to suit the time of the meeting to their return and the convenience of the Good Roads Bureau of the Department of Agriculture of the national government, which will be requested to send an expert to Minneapolis to lecture.

A Much-Traveled-Postman

Thomas Halloran, of Bennington, has the distinction of being the first United States mail carrier to make regular use of the automobile in Vermont in covering his route. He is also the first mail carrier to be appointed at the Bennington office, and he carries mail from the first post office established in the State.



BARNEY OLDFIELD IN HIS PATRIOTIC CAR



A WEEKLY JOURNAL DEVOTED TO THE INTERESTS OF AMERICAN AUTOMOBILISTS.

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An Imaginative Statesman

That the common people, meaning thereby the farming population, must either walk, abandon the highways or become the purchasers of automobiles, is the opinion of a Georgia statesman who has been giving the matter considerable study.

Having come to this conclusion he set about discovering the best plan to adopt in order to provide the common people aforesaid with cars. It was not very long before he put his finger on the cause of the backwardness in securing the coveted machine. The barrier is the tariff—the tariff on low priced cars. Let this be removed, and Presto! European makers will rush cars to this country by the tens or even hundreds of thousands, and in an incredibly short time every farmer in the country will be the proud possessor of an automobile!

Pleasing thought. One can already see the horse driven from the public highways in the country districts and the farmer "hitting it up" with entire disregard of speed regulations.

The only flaw in this train of reasoning is that Europe's supply of low priced automobiles is so small that if the tariff wall were removed and the entire output dumped on our shores, their arrival would scarcely create a ripple of excitement. There wouldn't be enough of the cars to go round in the Georgian's own State. There are American factories that produce more low priced cars than all of Europe put together.

The Georgian statesman is long on imagination, but short on facts.

Internecine Strife on Mount Desert

When the Maine Legislature was permitted to pass a law giving the residents of Mount Desert Island the power to admit or bar automobiles, as they might see fit, there residents thought they had matters in their own hands.

Bar Harbor is, to all intents and purposes, Mount Desert, and the inhabitants of Bar Harbor, composed in somewhere near equal parts of all-the-year-round and summer residents, long ago made up their minds that no matter what happened elsewhere, or how indispensable the motor vehicle might become in the course of time, one place at least would resist its encroachments. Since then a practically united front of opposition has been presented, and despite some narrow escapes, it has succeeded in putting off the evil day.

The Legislation referred to gives to inhabitants of a township the power to exclude automobiles by simply voting to do so. Most of the towns on Mount Desert promptly so voted, but one of them, Southwest Harbor, took the opposite course. Right here is where the troubles comes. Southwest Harbor tolerates, or even wants, automobiles, but to get from Mount Desert to the mainland, or vice versa, it is necessary to traverse the portions of the island where an abhorrence of the motor vehicle is felt. The interesting question thus arises, How can the Southwest Harbor people avail themselves of their inherent right to make use of automobiles without passing through territory where the passage of such vehicles is not permitted? If they cannot do this, of what value is the inherent right aforesaid? They don't build automobiles in Southwest Harbor, and if they can't bring them in or take them out, in the face of the edict of Bar Harbor and the other towns, what earthly use is the power conferred by the Legislature to vote in favor of automobiles?

Clearly this is a case that calls for heroic measures. The Southwest Harbor folk must be allowed the privilege of ingress and egress, and if this is allowed the rights of Bar Harbor are infringed.

It might be possible, however, to hit upon a compromise. Let the Southwest Harbor motorists, with their cars, be escorted through the confines of Bar Harbor with all the pomp and circumstance of an armed truce. Moving at a slow and decorous pace, to the tune of the "Dead March from Saul," played by a band furnished by Bar Harbor, the procession would be an edifying one, calculated to point a moral and adorn a tale. Once across the boundary line into Southwest Harbor the funeral trappings could be left behind, the band bidden good-bye, the pace increased, and joy succeed grief!

TRADE DEPARTMENT

E. M. F. to Build 25,000 Runabouts at \$650

That much used, and abused, word "sensational" is not a whit too strong to apply to the announcement which came from Detroit this week. It deals with a million dollar transaction—the purchase of the plant of the De Luxe Motor Car Company by the E. M. F. Automobile Company, and the plan of the latter concern to manufacture 25,000 four-cylinder runabouts during 1910, to sell at a price somewhere between \$650 and \$750.

An announcement of this sort is a!most calculated to take one's breath away for the moment, even in these days of big deals. The negotiations for the purchase of the De Luxe plant were conducted so quietly that very few people had even an inkling of them. As to the car to be produced, plans have been in the making for some little time, and work is so far along with the designing end that the details have been given out for publication also. They are of the eye-opening kind also. The car is to be a 20 hp., with three speeds of the sliding gear type, magneto, large tires and other details usually found only on vehicles selling for a considerably larger sum. In giving out the facts, E. Le Roy Pelletier is in his best vein. He says:

While the parties interested declined to state the exact amount involved, it is understood that it was somewhere between three-quarters of a million and one million dollars. It was a cash deal throughout, involving no exchange of stock or other interests. All the land, buildings and machinery are included in the purchase, as also are patents, drawings, tools and fixtures for making the car De Luxe, to the manufacture of which the plant has hitherto been exclusively devoted.

The land comprises something over fifteen acres, about half of which is at present covered with modern factory buildings admirably suited to the purpose for which it will be used. Besides the property of the DeLuxe Motor Company the E-M-F. Company also purchased from Kaufman about four acres additional. This latter lies between the Wabash Railroad tracks and Fort Street and adjoins the plant of the Timken Axle Company on the east. This gives the E-M-F. Company ample room for expansion.

The machinery is all modern and is well suited to the manufacture of a runabout to sell between \$650 and \$750—the exact price could not be ascertained.

The product will be marketed by the Studebaker Automobile Company, and the car will be known as the Studebaker-Flanders "20." As the name implies, the motor will be of 20 hp. Other specifications that were obtainable show that the Studebaker-Flanders "20" will be a full-sized automobile, not a dinky affair such as one might expect at the price indicated.

Having a four-cylinder motor, 35%x 3¾ bore and stroke, respectively; selective sliding gear transmission incorporated in rear axle similar to the E-M-F. "30," 100-inch wheel-base, 32-inch wheels, pressed steel frame, the Studebaker-Flanders "20" will be made in two types, a two-passenger runabout and four-passenger "Studebaker."

The car will have a magneto as standard equipment. "In short," says Flanders, "if you will look over the general specifications of other runabouts listed at \$850 to \$1.000, you will have a pretty accurate idea of the Studebaker-Flanders '20.' And the price will be less

than \$750. This car value is made possible by our methods of producing in tremendous quantities. From January 1, 1910, when deliveries will begin, to January 1, 1911, we will manufacture 25,000 of these cars. In the E-M-F. factory at Piquette and Brush Streets we will turn out something over 15,000 E-M-F. "39" cars. We would not build any better car than others do in lots of 3,000 to 5,000. But in planning for 25,000 a year things are possible methods can be applied—which would be entirely out of the question in producing smaller quantities of machines.

When it is remembered that the astounding promises made by Walter E. Flanders, presiding genius of the E-M-F. Company, a year ago, have

been fulfilled to the letter, it is safe to assume that he is not stating anything of which he is not sure at this time. That plans for the making of the runabout have been under way for several months has been known in trade circles, for the E-M-F. Co. was negotiating for another large plant out of Detroit. That all the plans have been finished, the material and special machine tools ordered for some time, was tacitly admitted by Mr. Flanders several days ago. his plans are well advanced is indicated by the fact that the day after the deal had been closed 150 men were transferred from the E-M-F. factory to the DeLuxe plant and the work of making such alterations as are necessary to accommodate the factory to its new mission was begun.

New Company for Kansas Town

The Badger Automobile Company, of Columbus, Wis., recently organized with a capital of \$50,000 paid-up capital, and \$100,000 capital stock, has elected the following officers: A. M. Bellack, president; C. Kurth, vicepresident; George Holtz, secretary; J. R. Wheeler, treasurer. Directors—Messrs. Bellack, Kurth, Holtz and William C. Leitsch.

M. R. Argobast, designer of the Badger car, which will be manufactured by the company, has been elected general manager of the company.

C. Kurth is president of the big Kurth brewing interests, and the other officers are leading business men and manufacturers. The company plans to manufacture 250 cars for 1910 delivery.

Trade Baseball League Gets Busy

The teams in the New York Automobile Trade Baseball Association have been having some pretty exciting contests since the formation of the league. On July 17, the Thomas and the Studebaker teams clashed on the field at 145th Street and Lenox Avenue, and the former team had a walkover, beating their opponents by a score of 16 to 3. The same afternoon at Huber's Grounds, 163d Street and Jerome Avenue, the Republic Rubber Company defeated the Pierce-Arrow Company, after an exciting game, by a score of 8 to 6. At the

same field on Sunday afternoon, July 18, the Diamond Rubber Company team rolled up a score of 15, while the representatives of the Packard Motor Car Company were making 1 tally.

President J. A. Wister, of the Philadelphia Automobile Trade Association, has appointed a committee consisting of himself and W. J. Foss and W. J. Gibney, to make arrangements for next winter's automobile show. No decision has been reached as to where it will be held.

Maxwell-Briscoe Men Meet at Newcastle

The guiding spirits of the Maxwell-Briscoe Motor Company believe in conventions and a frequent interchange of ideas between the men who make and sell the concern's output. The Newcastle (Ind.) plant, the largest of all, was selected as the meeting place of the 1909 convention of the district supervisors and branch house managers, which met on July 13.

Most of the delegates arrived from Detroit, where they had gone to attend the festivities incident to the Glidden tour. The party left Detroit on a special train of the Big Four, stopping for luncheon at Springfield, O. The Maxwell band, which had enlivened things at Detroit, accompanied the delegates, who arrived at Newcastle about 10 o'clock in the evening, stopping at the Bundy Hotel.

The first day's session was attended only by district supervisors and district managers and the discussion included the selling policy of the company for the coming season, and other matters of interest to the closer family circle of the Maxwell organization. Among the delegates were Benjamin Briscoe, J. D. Maxwell, F. D. Dorman, A. B. Bark-

man, A. R. Gormully, Ernest Coler, J. D. Moore, of the company's home office; Col. K. C. Pardee, New York City; J. M. Austin, Atlanta, Ga.; Charles E. Monroe, Buffalo, N. Y.; A. I. McLeod, Detroit, Mich.; Robert Davis, Detroit, Mich.; F. J. Linz, San Francisco, Cal.; Thomas Dunn, Pittsburg, Pa.; F. J. Tyler, Boston, Mass.; C. G. Bleasdale, Cleveland, O.; B. E. Stimson Minneapolis, Minn.; J. I. Handley and R. A Creck, Chicago, Ill.; W. S. Hathaway, Kansas City, Mo.; Gebriel Chiera, Detroit, Mich.; T. E. Lester, Dallas, Tex.; H. E. Rooklidge. Kansas City, Mo.; Frank R. Tate, St. Louis, Mo.; E. E. Cohen, Portland, Ore.; M. A. Sacksteder, Dallas, Tex., and C. J. Simons, St. Louis, Mo.

After the first day's work the Maxwell men were guests of the city of Newcastle, who had prepared on elaborate entertainment at the country club, otherwise known as the Nip and Tuck Club. The Hon. Charles F. Hernley made a most agreeable host. Fireworks, band concerts and general jolification at Maxwell Park were attended by some 5,000 Newcastle inhabitants.

Coast Rubber Men on Way East

The Ajax-Grieb Rubber Company will hold a convention of its branch managers at the Trenton, N. J., factory on July 28 to 31, inclusive, at which it is expected that the men who boom Ajax tires in the various cities from coast to coast will attend in force. A

number of the Western branch managers are now en route for the East, and in addition to the business that is to be transacted by them here, they will be treated to a sight of the twenty-four hour race at Brighton Beach, scheduled for July 30-31.

Iowa Dealers Form Association

About fifty automobile dealers of Iowa attended a meeting at Marshall-town, Ia., recently and formed the Automobile Dealers Association of Iowa. The following officers were elected: D.

P. McClure, of Oklahoma, president; W. E. Sears, Des Moines, first vice-president; M. J. Dannett, Clinton, second vice-president; C. C. Eldridge, Marshalltown, secretary and treasurer.

Diamonds in the Glidden Tour

George A. Davidson and L. B. Rittenhouse are the Diamond Rubber Company's representatives accompanying the Glidden tour. Diamond equipment is used by a large percentage of the cars, and of the actual contestants for the Glidden trophy, eight of the thirteen cars are using Diamond make, both as to tires and quick-acting rims. Six makes of tires are represented on the total of forty-one cars in the run, the

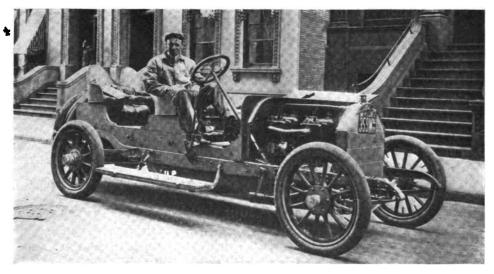
number using Diamond being fourteen.

Tire observations will be reported with more scrupulous care than ever, this year, but an effort made by the Diamond representatives to have the rules provide direct penalties for tire troubles was without result. One tire the general public has heard little of, but which is well-known in high wheel automobile circles, is the Diamond motor buggy special solid tire.

Some Firsts for the Houpt Car

Several firsts are indicated by the illustration here shown. The car depicted is the first Houpt put out and the

mountainous district of Pennsylvania, with Montagne Roberts at the wheel to put the creation through its paces. He



MONTAGUE ROBERTS IN THE HOUPT CAR

picture was snapped at the end of the first testing trip. The latter was a trifling run of 800 miles through the

declares that he never opened his tool kit or did a thing to the car from the time he left until he returned.

D. M. Parry to Make Autos

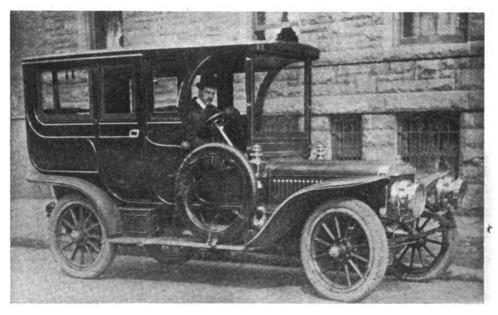
D. M. Parry, who has been manufacturing buggies in Indianapolis for twenty-seven years, is going to devote his future energies to making automobiles. He has resigned as president of the Parry Manufacturing Company, and is

organizing the Parry Automobile Company, which will build a \$100,000 plant. He states that a runabout and touring car will be manufactured. The new company will have about \$1,000,000 capital.

Chauffeur Butler and His Prize Winning Car

When a man drives just over 17,000 miles in a season without incurring a cent of upkeep expense he has reason

ton chauffeurs' contest, the results of which were published last week. The accompanying illustration shows him in



THE TWO PRIZE WINNERS

to be proud both of himself and his car. This was the feat performed by G. W. Butler, who won first prize in the Winhis prize winning car. The latter was, of course, a Winton, and it is doubtless good for many more contests.

The Truth About that Truck

The published reports that the truck whose accident near Valparaiso, Ind., held up the Glidden tour nearly an hour, was loaded with Firestone tires, is helly denied by H. S. Firestone, who says:

"This particular truck was carrying a load of Firestone signs, not tires, from Detroit to Chicago and had nothing whatever to do with the Glidden tour.

"Contesting cars using Firestone tires have never yet felt the need of being accompanied by loads of fresh tires; Firestone tires are not made that way. For instance, in the New York to Seattle race two of the cars started and finished without carrying any extra

tire equipment whatever, and I rather think that this 4,000-mile race was a somewhat stiffer proposition on tires than the Glidden tour has ever been.

"We are interested in the Glidden tour only as a car test, and not from a tire standpoint anyway, as the management ruled against making a record of competitive tire service."

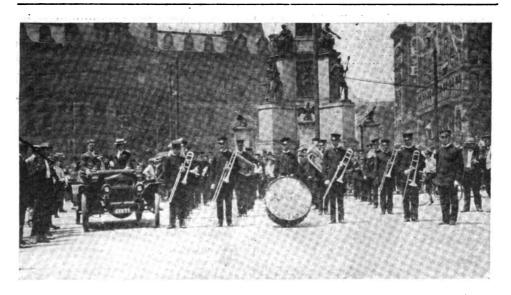
The Buick Motor Company has applied for permission to do business in Indiana. It is a Michigan corporation with a capital stock of \$2,500,000. It will use \$10,000 in its Indiana business.

Weed Wins Victory

The Weed Chain Tire Grip Co. announce that they have secured a restraining injunction in the Federal Court of the District of Western New York against the International Automobile League from selling Weed Chain Tire Grips or parts thereof at lower prices than those marked on the bags containing the grips, or upon the Weed price list. The Weed people are the first to make a successful fight against the International Automobile League.

Taxicab Company Moves

The Franco-American Taximeter Company has moved to spacious quarters on Seventh Avenue, southeast corner of 49th Street, New York City. From this point the company will didect the handling of all its business, which has hitherto been in charge of Lavalette & Co., as rental agents. In the new building are extensive repair shops and a garage, which are calculated to care for the fast increasing business in a satisfactory manner.



THE MAXWELL-BRISCOE BAND AT DETROIT

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INDEX TO ADVERTISERS

Instruction-

Automobiles (Electric)—
Babcock Electric Carriage Co. 1108 Batter Motor Vehicle Co. 1108 Studebaker Automobile Co. 1042
Automobiles (Gasolene)-
Chalmers-Detroit Chalmers-Detroit Motor Co. 1043 EMF Bretks-Metager-Flanders Co. 1103 Heynes Automobile Co. 1103 Herreshoff - Harry S. Hougt Co. 1107
Hudson-Hudson Motor Car Co
Learnable Lacrophile Co. of America
Matheson-Matheson Motor Car Co 1045 Maxwell-Briscon-Means Co. 1045 Miker Il Meter Car Co. 1107 Mora-Mora Meter Car Co. 1007
Mora-Mora Motor Car Co
Overland Automobile Co. 1107 Palmer & Binger Mfg. Co. 1050
Poerices Motor Car Company
The Pierce-Arrow Motor Car CoInside Back Cover
Rambier—Thee. B. Jeffery & Co
Stearns-The F. B. Stearns Co
1909 A. A. A. Tour 1076
Stevens-Duryea Co
The E. R. Thomas Motor Co
Winton-Winton Motor Carriage Co Inside Front Cover
4
Automobiles (Steam)—
The White Company Back Cover Lane—Lane Sales Co. 1106
Stanley & Patterson
Bodies-
Springfield Metal Body, Co
Champagnes—
Coils— Heinse Electric Co
Dust Preventives-
Tarvia-Barrett Mig. Co
I MITTHE DELICIT DIEG. CO
Electric Welding— Standard Welding Co
Eye Tonic—
Murine Eye Remedy Co
Graphite→ Joseph Dixoa Cracible Co
Fundation Demises
Ignition Devices— A. R. Mosler & Co
A. R. Mosier & Co
deemana Magneto-Lavalette & Co
Icinse Electric Co. 1048 J. S. Bretz & Co. 1106
J. S. BIGLE & CO 1100

Correspondence School of Motor Car Practice
Lamps— Badger Brass Mfg. Co. 1103 Gray & Davis 1104
Lubricants 1165 Columbia Labricants Co. 1185 Joseph Dixon Crucible Co. 1108 Vacuum Oil Co. 1108
Magnetos— Elecmana Magneto-Lavalette & Co
Oils— Columbia Lubricants Co
Ornaments— 1049
Parts— Billings & Spencer
Photo Engravers— Sterling Engraving Co
Second-Hand Dealers— Times Square Auto Co
Shock Absorbers— Bi-Cal-Ky Auxiliary Spring Co
Signalling Devices— Nightingale Whistle Co
Spare Wheels— United States Spare Wheel Co
Spark Plugs
Timers— A R. Moeler & Co
Tires— 110d Ajux-Grieb Rubber Co
Firestone Tire and Rubber Co
Tire Grips— Weed Chain Tire Grip
Tops— Sprague Umbrella Co
Travel— Detroit & Cleveland Navigation Co
Wind Shields— Sprague Umbrella Co

News Notes

Hereafter Rambler cars will be handled in St. Louis and vicinity by the Kingman St. Louis Implement Co.

A branch is to be opened in Seattle, Wash., by the Firestone Tire and Rubber Company. It will be located at 918 East Pike Street, and will be under the management of E. L. Champion.

The Motor Car Agency, Inc., of Seattle, has been appointed distributers of the well-known Pierce-Arrow motor cars in the Western Wasnington territory for 1910. The company has taken temporary offices at 300 Melhorne building.

At a meeting of the directors of the Elkhart Motor Car Company, of Elkhart, Ind., held recently, it was decided to purchase the new factory building originally erected for the Sterling-Hudson Whip Company, and use it for the manufacture of automobiles.

The Studebaker Automobile Company, of Spokane, Wash., with the assistance of the Rose-Dulmage Automobile Company, of that city, have secured enough entries to make a successful automobile run from Spokane to the A.-Y.-P. E. grounds, Seattle, during the fair. The Studebaker Company will pay all expenses incidental to the trip and will provide for the entertainment of those who make the unique trip on their arrival in Seattle. The road is approximately 475 miles between the two points.

"Every time I go out on the street with my little car," said Mr. A. Elliott Ranney, speaking of the new Hudson "20," "I feel like an offender against the municipal regulations. The moment the car stops at the curb crowds commence to gather around it, and it is no common thing to have 200 people crowd the sidewalk curb, trying to get a look at this \$900 machine. We have been employing only one demonstrator. The first day the Hudson arrived we found that we would have to have at least three, and as we are to take care of the demonstrations to prospective purchasers. giving each man a tryout of the car within a reasonable time, we shall have to have six demonstrating cars in constant use."

One of the most noteworthy features attending the start of the Glidden Tour was the presence of the Maxwell-Briscoe Motor Company's Band, forty strong, who had come from Newcastle, Ind., to lend their tuneful activities to the greatest of all American touring contests. The band made

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The Device that Made Safe, Speedy and Comfortable Automobiling Possible. Write for Catalogue, Department D. HARTFORD SUSPENSION CO. E. V. Hartford, Pres. 145 Bay St., Jersey City, N. J. its first bow to Detroit on Sunday, during the festivities prepared for the Gliddenites by the City of Detroit. The band won much praise for its excellent performance, and is said to be the bestdrilled musical organization of its kind in the State of Indiana. Maxwell men were conspicuously in evidence in Detroit. The Maxwell district supervisors and branch house managers gathered for the annual convention of the company's selling forces, held in Newcastle, Ind., on Tuesday, July 13. The Maxwellites left Detroit Monday afternoon, taking the band with them. There are three Maxwells in the tour, a 30 hp. runabout, driven by Goldthwaite; a 20 hp. touring car, piloted by Gager, and a Maxwell press car.

When the recent unfortunate accident occurred at the Montreal track meet, killing two drivers when a clincher tire was thrown from the rim of a competing car, a number of the other contesting drivers grew considerably agitated over the tire question in racing. Two of the best known pilots we have were heard to remark that never again would they drive in a race unless their mount was equipped with a secure combination of tire and rim, such as the Fisk Bolted-On equipment. While it is true that Fisk removable rims and bolted-on tires are used to much greater extent by tourists than by racing drivers, nevertheless the latter are rapidly realizing the value of a set of tires that cannot come off, for records show that during the past year Fisks have been represented at a great many more contests on a greater number of cars than ever before. A number of entrants in the coming 24-hour race to be held at Brighton Beach on July 30-31, are arranging to have their mounts fitted with Fisk rims and bolted-on tires.

INCORPORATIONS

Paterson, N. J.-Metz Automobile Co., with \$25,000 capital. Incorporators: John M. B. Ward, S. F. Holden and P. J. McGinnis.

Trenton, N. J.—Adams Garage Co., with \$25,000 capital. Incorporators: Walter Eldridge, Carl F. Adams and Charles E. Wilson.

Detroit, Mich.-Auto Parts Co., with \$100,000 capital.

Elkhart, Ind.—The Crow Motor Car Company. with \$50,000 capital. Incorporators: Edward C. Crow. Frank A. Howe, and Martin E. Crow.

Boston, Mass.-Hub Automobile and Renting Co., with \$10,000 capital. Incorporators: H. B. Josselyn and L. H. Josselyn.

Mention "Automobile Topics" when writing.

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Fairmount, Minn.—The Fairmount Machine Co., with \$50,000 capital, to manufacture gasolene engines. Incorporators: Frank E. Wade, A. R. Fancher, H. E. Woolery and V. St. John.

Budd Lake, N. J.—Interlaken Transportation Co., with \$12,000 capital, to operate an automobile transportation line. Incorporators: Frank M. Lisk, Austin King and Andrew Henchkel.

Portland, Ore.—Deschutes Automobile Co., with \$5,000 capital. Incorporators: Roscoe Howard, Alfred F. Biles and Jesse Stearns.

Chicago, Ill.—Colonial Rubber Works, with \$7,000 capital, to deal in tires and rubber goods. Incorporators: Henry Nyberg, Everett McConnell and Emerson McConnell.

Mt. Vernon, N. Y.—Westchester Automobile Co., with \$5,000 capital.

San Antonio, Tex.—Piper-Lowry Auto Co., with \$15,000 capital. Incorporators: F. A. Piper and W. E. Lowry.

Chicago, Ill.—Siegmund-Baylies Co., with \$40,000 capital, to manufacture and deal in automobiles. Incorporators: O. S. Baylies, E. H. Arnold and A. C. Noble.

Chicago, Ill.—Speed Sales Co., with \$40,000 capital, to manufacture and deal in automobiles, etc. Incorporators: Arthur W. McGovney, F. C. Rathje and H. Clay Calhoun.

Oklahoma City, Okla.—Southwestern Automobile Supply Company, with \$10,000 capital. Incorporators: W. B. Brown and T. B. Funk.

Detroit, Mich.—Oldsberg Manufacturing Company, with \$10,000 capital, to manufacture mufflers and other automobile accessories. Incorporators: V. Oldberg, H. P. Wayman and A. C. Born.

Indianapolis, Ind.—Meteor Motor Car Company, with \$10,000 capital. Incorporators: Leonard Carter, Charles P. Henderson, Arthur B. Lathrop, Ransom P. Henderson and Joseph J. Cole.

Rochester, N. Y.—The Gillis-Strickland Motor Co., with \$25,000 capital. Incorporators. James W. Gillis, Samuel M. Havens and Ruric H. Strickland.



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Automobile Calendar

July 24.—Automobile track race meet at Latonia, Ky.

July 26-28.—First Annual Automobile Show and Track Races in Amarillo, Texas, under the auspices of the Amarillo Automobile Show Association.

July 30-31.—Twenty-four hour race meet at Brighton Beach, N. Y., under the direction of the Motor Racing Association.

July 31.—Hill-climbing contest at Richfield Springs, N. Y.

July 31.—Hill-climbing Contest in Richfield Springs, N. Y.

July 31.—Automobile Race Meet at Elm Ridge Park, Kansas City, Mo., under the auspices of the Kansas City Automobile Club.

July 31.—Annual London to Cowes Race, under the auspices of the British Motor Boat Club.

July 31.—Club Run and Shore Dinner at Olympic Park, Newark, under the auspices of the New Jersey Automobile and Motor Club.

August 4, 5, 6 and 7.—Automobile Carnival at Seattle, Wash.

August 5.—Fourth annual hill-climb on the Algonquin, Ill., hill, under the direction of the Chicago Motor Club.

August 5-7.—Midsummer Meeting of the Society of Automobile Engineers at Chicago, Ill.

August 11, 12, 13.—Motor Boat Carnival off Newport, R. I., under the auspices of the Newport Yacht Club.

August 17.—Automobile track race meet at Cheyenne, Wyo., under direction of the Cheyenne Motor Club.

August 19-21.—First Automobile Race Meet on the Indianapolis Motor Speedway.

August 22.—A series of Speed Trials, under the auspices of the Automobile Club of Frankfort-am-Main.

August 22-29.—Aeroplane races at Rheims, France, under the auspices of the Aero Club of France.

August 24-27.—Circuit of Ardennes; Liederkerke cup and voiturette race, under the direction of Automobile Club of Belgium.

August 26, 27, 28.—Three Days' Endurance Contest, under the auspices of the Minnesota State Automobile Association.

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- August 29-September 3.—Small car competition. under direction Automobile Club of Germany.
- September 4-5.-Mont Ventoux hill-climbing contest, under the auspices of the Vanclusien Automobile Club.
- September 6-11.—Six-days' motor carnival, under the auspices of the Lowell (Mass.) Automobile Club.
- September 11-19.—Florio cup race, under the auspices of the Automobile Club of Bologne,
- September 12.—Two automobile road races, under the auspices of the Automobile Club of Ostend.
- September 15.—Start of endurance contest from Denver to Mexico City.
- September 18.—Decorated Automobile Parade at Denver, Colo., in connection with the second annual Colorado Inter-State Fair and Exposition.
- September 19.—Semmering hill-climb.
- September 21-23.—Good Roads Convention of the American Automobile Association at Cleveland, Ohio.
- October 2-17.—Aeronautical Salon in the Grand Palais, Paris France.
- October 7.—Second annual stock chassis race in Fairmount Park, Philadelphia, under the auspices of the Quaker City Motor Club.
- November 6-13.—Automobile Show at Atlanta, Ga., at Auditorium Armory, under auspices National Association of Automobile Manufacturers.
- December 29-30.—Fourth annual mid-winter endurance contest, under direction of the Quaker City Motor Club.
- December 31-January 7.—New York City, Grand Central Palace; Decennial International Automobile Show. Under management of the American Motor Car Manufacturers' Association with the Importers' Automobile Salon and the Motor and Accessory Manufacturers. Alfred Reeves, general manager, 505 Fifth Avenue, New York City.
- January 8-15.—Tenth Annual National Automobile Show in Madison Square Garden, New York, under the auspices of the Association of Licensed Automobile Manufacturers.
- Feb. 5-12.—Ninth Annual National Automobile Show in Chicago, under the auspices of the National Association of Automobile Manufacturers.



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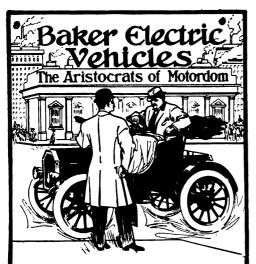
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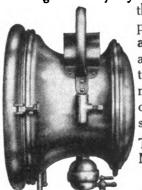
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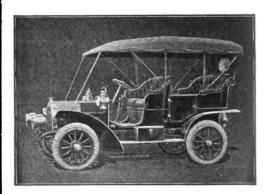
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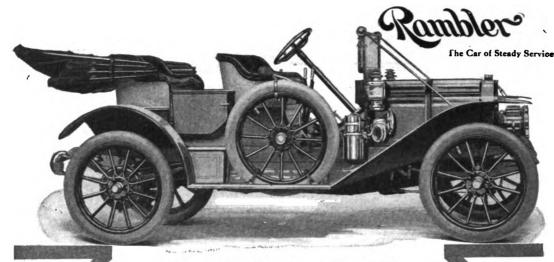
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Vol. XVIII.

NEW YORK, JULY 31, 1909.

TABLE OF CONTENTS

No. 17.

	PAGE
A Flight Made by Louis Bleriot in France, in the Machine With Which He	
Crossed the English Channel on July 25Frontispiece	1120
Topics	1121
A. A. (Glidden) Race Near Its End	1124
The Happy Farmer-MotoristIllustrated	1131
Lays Aside Crutches to Fly Across Channel	1132
Pittsburg To Be Clean	1133
Motordrome Project for Atlantic City	1134
Mt. Washington Road Open to Automobiles	1134
Latham Again Falls Into SeaIllustrated	1134
Aerial Transportation Company Formed in New York	1136
Wrights Perform New Feats	1137
Road Conditions in New York State	
Low-Priced Cars and Tariff	1140
Grand Rapids Has a Taste of Racing	1145
Atlanta Preparing for a Big Show	
Spending the Highway Money	1147
Pitfalls for Tire Users	
Ball Bearings Invented in 1791	1149
Silver Offering to Mark Fairmount Park Race	1150
Accidents and Rules of the Road	
Kansas Farmers Take on City Ways	1157
Experimentation With Springs	1158
Four-Cylinder Reo at \$1,250	1159
A Ride in a White Steamer	
Women Transcontinentalists Nearing Their Goal	1161
Louis Bleriot, First Channel Aeronaut Editorial	1162
Ideal Highways Still Far Off Editorial	1163
Walter Company Receiver Makes Report	
Diamond Employees Make Merry	1165
New Palmer & Singer Factory Nearly Ready	1166
Big Implement House Takes on Rambler	1167
Long Drive in Mountainous CountryIllustrated	1167
Big Addition for Stoddard-Dayton PlantIllustrated	1168
Firestone Demountable Rim Literature	1169
Index to Advertisers	
News Notes	
Incorporations	1172

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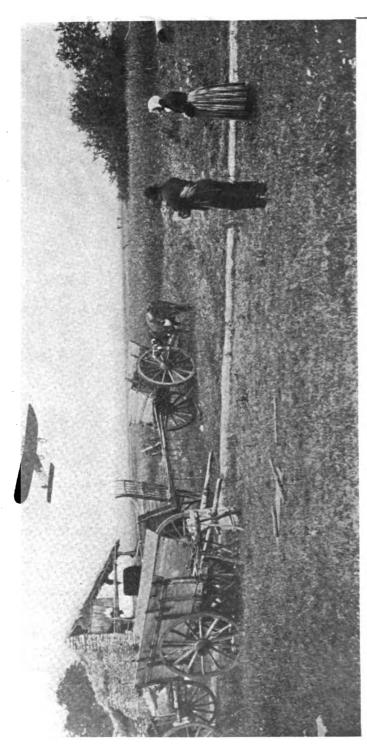
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THE AUTOMOBILE USERS' WEEKLY

Vol. XVIII.

NEW YORK, JULY 31, 1909.

No. 17.

TOPICS

We have many times had occasion to commend the official actions of Commissioner Smith, who has for several years had the

Motor Vehicle Department of New Jersey in his charge. Commissioner Smith is that rarity in public affairs—the right man in the right place. Insofar as it is possible to do so he hands out justice—based on equity, not always on law—to the motorists of that State, and on all possible occasions he endeavors to mitigate the harshness of the statutes and to establish a workable basis for the operation of motor vehicles. At the same time he is eternally vigilant in his endeavor to punish reckless drivers. The most recent example of this is found in the revocation of the licenses of six chauffeurs who were concerned in a "joy ride" a week or two ago. One of these men was assigned the job of taking a car to a customer at the seashore, and when he came for it the night before he was to have started, it was given to him without demur. Thereupon he loaded it up with a party of friends, who started off for a good time. The usual result followed, the car smashing into another one which happened to be filled with a party of similar convivial spirits. Two smashed cars and many contusions and other bodily injuries ensued, the only wonder being that someone was not killed. The prompt revocation of the licenses of the six men will undoubtedly have a salutary effect upon their kind.

Strange are the ways of Providence. The truth of this venerable saying is impressed upon us by a story which comes from that Providence that is located in Rhode Island, at the head of Narragansett Bay. It appears that members of the police automobile squad recently "shot up" an alleged speeder, riddling his tires with bullets. Now comes the police commission, which, when charges were made against the policeman, conducted an investigation and completely exonerated the accused. The latter was simply doing his duty, one commissioner said. We may be thankful that, so far, it is only tires that the police can "shoot up." Other parts of the car may be attacked later, or even the occupants, in extreme cases.

A curious and embarrassing situation has been created by an opinion given by the Attorney-General of New York. He holds that under the present law there is no provision requiring the owner of a motor car, or any member of his family, to procure a chauffeur's license before running such machine. The attorney-general points out that the only requirement of the law is that a chauffeur shall procure such license, and that the word chauffeur is defined by the law as "any person operating a motor vehicle as mechanic, employee or for hire." This does not, he says, include the owner or any member of his family, and, therefore, there is nothing requiring such persons to procure a license.

It is time for someone to arise and ask, "How about this year's Vanderbilt Cup race." Come to think of it, we haven't heard very much about this classic event since last fall. Surely there is no thought of abandoning it!

There is to be a presidential box in the grand stand that is to be erected for the Lowell, Mass., races in September, and it is expected, or perhaps it would be better to say hoped, that President Taft will grace the affair with his presence. If it were only golf now!

Snow from three to eight feet deep was the pleasant sight offered the Glidden tourists while in Colorado. It is not surprising that they enjoyed the "novelty" exceedingly.

Still the motordromes or automobile tracks come. Brooklands led the way, and the Long Island Motor Parkway started next, while Indianapolis and Atlanta both have enterprises that are well under way. Now comes Atlantic City with a revival of its often discussed enterprise. This time it is said to be something more than talk.

There was keen competition to be the first to cross the English Channel aloft. But while Latham slept, dreaming of his successful flight, and Lambert crossed by water to find a safe landing place, Bleriot turned the trick. The man who does things, and does them quickly, is either a genius or akin to one.

From the West comes a car which is styled the "Black-Crow." There is an impression that all crows are black, but occasionally a white one is seen.

It is stated as an instance of the popularity of automobiles at summer resorts that at a well-known White Mountains hotel, in three pages on a hotel register, all arrivals but six came by automobile, while at one hotel alone were registered forty-six cars, the property of permanent guests of the hotel, who have brought their cars for greater enjoyment of New Hampshire's good roads.

Signs of the coming conquest of the motor vehicle continue to multiply. The *Motor and Horse Vehicle* is the new name of the *National Vehicle Magazine*, a Chicago publication, which makes this editorial announcement dealing with the switch-over: "The demand for motor vehicles among vehicle and implement dealers is so urgent that we have been requested by numerous manufacturers of and dealers in horse vehicles to combine the two lines and issue a magazine for



the dealer that will properly illustrate and give such information as well help him in the buying and selling end of his business." It will be observed that it is "Motor and Horse" Vehicle, not "Horse and Motor" Vehicle.

"Week-end motor parties are very fashionable in England," it is said. The plan is to charge \$36 for each guest, who receives in return an automobile ride to points of interest, and then board and lodgings at the residence of the giver of the party. The plan is said to have proved very profitable for women who possess homes in places where the surroundings are pleasant and the scenery is picturesque.

Now it is the summer resorts that are hard hit by automobiles. It appears that many business men who have been in the habit of sending their families to the resorts for weeks at a time, now have cars and make short trips from their city homes

If anyone meets a stray balloon, unattended, and ignorant of whither it is drifting, please notify the United States Weather Bureau at Washington. Officials of the Bureau are awaiting news of the flight of one of its balloons, which broke away from its moorings at Mount Weather, Virginia, last week, with some valuable weather instruments as ballast.

Another aerial company has been incorporated. Its charter empowers it to carry on the business of transportation of "passengers, animals, freight, baggage, and other commodities by airships, aeroplanes and other vehicles." This is certainly comprehensive enough.

The country resident, whether he be genuine farmer or suburbanite, is up to snuff these days. Driving along a New Jersey road last week we came to a short stretch that had been freshly treated with a preparation for laying the dust. About one-eighth of a mile of the road had been so treated, and exactly in the center of it was the entrance to a well-kept country place of modest aspect and dimensions, with a lawn and gardens to set it off. There could be no doubt of its meaning. The owner or occupant of the place had gone into the road treatment business on his own account, and by spreading a few hundred gallons of the preparation on the road had secured complete protection from the dust.

As the A. A. (Glidden) tour draws to a close, the rivalry between the contestants still credited with clean scores becomes keener, and more speculation as to the outcome is indulged in. "Napoleon" Hower is evidently mindful of the ending of last year's tour, and is credited by our correspondent with a desire to take into his confidence disinterested persons. A good sign.

An "Auto Marathon" is to be held this week in connection with a 24-hour race. What posible connections there can be between a marathon, either ancient or modern, and a race for motor vehicles, is one of those things that puzzles inquisitive people.

A deficiency of \$30,000 has had to be met to settle matters connected with the recent Cobe trophy races in Indiana. Everything is all right, however, as President Ira M. Cobe and former president John Farson are to be permitted by the Chicago Automobile Club to help make up the deficit.

A. A. (Glidden) Race Near Its End

With ten clean score cars, nominally, that is, left in the A. A. A. touring contest, and the strenuous struggle almost at an end, interest in the event has greatly increased. Rivalry between the possible trophy winners is intense, and as the daily runs are long and over roads presenting many difficulties, and the drivers are pretty well worn out by the long grind, there is plenty of material for a dramatic ending. The story of the daily runs and of the scenes and incidents attendant upon the stay in Denver are told in the following dispatches:

KEARNEY, Neb., July 22.—The journey from Council Bluffs to this city was increased to 203, instead of 200 miles, because of bridges and road repairs, but smooth roads were encountered along most of the route and consequently the run was about the easiest to date. The day's travels ended with

the withdrawal of the Chalmers-Detroit driven by William Bolger because of engine troubles.

The Missouri River was first crossed, being the second toll payment since the start from Detroit. After crossing the river the run led through Omaha, and the natives were disappointed when the tourists failed to stop in the town. Probably Omaha, which has a rather lively automobile club, did not care a great deal in itself about entertaining the A. A. A., but when Council Bluffs, just across the river, with a quarter of the population, was made the one-night stand, it did not set well on the stomachs of the Nebraskans.

It is said that Council Bluffs had in side influence with the A. A. A., which did the trick. Anyhow, the Council Bluffers did themselves proud, so no one regretted their getting the award. Council Bluffs, by the way, has several



ON THE BOUNDLESS PRAIRIE, WITH NOT A HABITATION IN SIGHT



A STUDEBAKER CAR, NEAR CLARKE, IOWA

road signs painted "Glidden Tour Council Bluffs, 1910," electioneering as if it were for a political convention.

Fremont, 42 miles out, where the rolling country was left behind, will long

be recalled by the pickets that diverted nearly everyone from the confetti trail and sent them through the town by way of a brewery that handed out bottled souvenirs. Grand Island, 155 miles out,



WELCOMING THE TOURISTS FROM A POINT OF VANTAGE

was the only other large place en route.

There is a wide, splendid road, twenty-five miles long, leading into Kearney, over which some hit up to a sixty-mile an hour clip, only to be held back for the second time that day by the chairman, who thought the speed made the day previous was turning the run into a race. The Kearney Automobile Club members ushered the tourists to six shower baths which they had installed in a plumber shop, and the tourist Gliddenites immediately proceeded to relieve themselves of the dirt accumulated on the 203 mile trip. In the evening the local motoring organization entertained the visitors at a smoker.

JULESBURG, Neb., July 23.—To-day's run from Kearney to this city, 206 miles, was over a wild country full of charm to strangers. Seventy miles out villages came to an end and for forty miles only about ten houses were seen. North Platte, 117 miles out of Kearney, was the only large place run through during the day.

Near Sutherland three short hills with bottomless sand brought nearly everyone to grief. But for the farmers nearby, with teams of horses, who pulled them out, some of the cars would not have got through in time to beat the schedule. Beyond Paxton sand washouts from big creeks at the foot of short hills proved another bother. At Ogallala Oliver Bernhart, driving the Jewel, in the Glidden trophy class, collided with the runabout of a local doctor, which resulted in a chase by the sheriff of the next town. No great damage was done.

The country traversed the last third of the way was exceedingly wild, touching here and there the old Oregon trail along the Platte River and the Union Pacific Railroad. This Oregon trail forty years ago was a great resort for Indians, but is now given over to cattle

raising, with the dwellings miles apart. One mud hole left the 70 hp. Thomas so deep that it had to be dug out.

DENVER, Colo., July 24.—After traveling 205 miles from Julesburg, Neb, the tourists were glad when this city was reached. The entire day's run was full of incidents. Twenty-five miles out of Julesburg rough roads were encountered that made it hard beating a score of miles through small ranching settlements. Many times irrigating canals had to be run through, involving a quick descent on one side and a steep ascent in soft mud and sand on the other. A number of mud holes were found which were caused by the recent rains. These were welcomed by the drivers, for the wheels of the cars were badly in need of soaking after nearly 2.000 miles run in midsummer without a bit of rain.

Fort Morgan, the only large town en route, was overtaken at 113 miles, and soon after Chairman Hower held up the leaders that he might eat lunch without bumping the bumps. A bit later came fully twenty miles of the most lonesome prairie stretches that could be imagined. These stretches were full of bumpy spots which kept the passengers in the air most of the time. Even the confetti car got lost and then did not pick up its misleading evidence when it got tacked on the right channel. Consequently, Chairman Hower and half a dozen other cars went off the route for a spell but soon found their way to the proper road.

A rickety bridge across a prairie creek sixty miles before reaching this city caused the Thomas press car to go down through the weak planks to its axles, but it was pried up and pulled out by the 70 hp. Thomas entered in Class A. Naturally all the entrants behind lost more or less time, but the only car late enough to be penalized was the

Glide, the demerit being left suspended until further information is forthcoming.

The tourists were entertained Sunday morning by members of the Denver Motor Club, who took them out in their cars through the city and suburban streets. In the afternoon all went to Lakeside, the Coney Island of Colorado, with a Dreamland electric tower. After

abroad he mentioned that in Palestine a native insisted upon putting a pitcher of holy water into the radiator of his car.

Chairman Hower was indisposed Sunday and did not appear among the visitors, nor did he participate on Monday in the magnificent trip to the heart of the Rockies given the visitors by the local automobile club. The journey,



WATCHING THE ARRIVAL OF CONTESTANTS

making a tour of the attractions a dinner was served.

In a speech at a dinner Sunday night, Charles J. Glidden, the donor of the trophy for which the cars are making the 2,600 mile journey, made a plea for better roads through and beyond the Rockies, so that a transcontinental run may soon be as feasible as the tour from New York to Denver. In a talk the same morning at the Trinity Church Sunday School, Donor Glidden told of his ballooning and automobiling experiences. During a talk of his travels

which covered 140 miles to the summit of Mount McClellan, cannot be excelled by any one-day mountain trip in America, and the tourists that made the trip returned to the city enthusiastic, the rarified atmosphere at 14,000 feet elevation, was too much for many of the party, who collapsed during the short scramble to the highest point. A hail storm followed by rain, cut short the halting period of the tourists. The souvenirs were mostly bouquets of wild flowers gathered within a few feet of still snow clad gorges.

Hugo, Colo., July 27.—The 173.5 miles journey from Denver to this city to-day resulted in two more perfect scores being wiped out, leaving but eleven of the thirty starters with clean The White, which is using kerosene as a fuel in the Glidden trophy class, developed a leaky lubricant pipe, which cost it 16 points for tardiness and 2.2 points for repairs. The American Simplex ended the clean slate in the Detroit trophy class by getting into a bad washout which cost it 1.04 points, divided into 1.02 for work and .02 for outside materials. The penalty suspended on the Glide since Saturday night was given out as 119.3 points for tardiness. The Glide was late again tonight, but the penalty went over. A correction was also announced on the penalty of the Jewel 7, reducing the 16 points on July 21, to 8.6, which leaves it with a total of 8.9.

The day's traveling brought many other happenings. The Thomas competing for the big trophy caught fire owing, it is thought, to a match in friction on the brake, along with the oil. The way those Morgan & Wright antiwind matches were cleaned out of the The Rapid truck, car was a caution. which has made a hit with its Teddy Bear, has done valiant work, but according to a wireless from Mountain Heights, Pikes Peak proved too much The boys aboard cut out the merrymaking at Denver to start Sunday on the stunt down the Pike, but it got stuck about two miles from the summit, near the timber line. Teddy Bear escaped it is probably now a mountain lion.

When half way to Colorado Springs one of the two Brush runabouts, which are following the tour as non-contestants, skidded and flopped over, so a return had to be made to Denver for repairs. Another non-contestant, the Hupmobile, at the same point broke a

connecting rod and also went back to Denver.

The journey to-day was about 174 miles, the first being 70 southward to Colorado Springs, thence easterly, marking the turning homeward in earnest. At Colorado Springs, the Ringling circus was encountered for the third time within a week. The question is, which is trying to steal the other's dates. On the way the circus train was twice overtaken and the clowns and curiosities waved affectionate greetings.

You don't have to go through the Garden of Gods if you take the Gliddenites route, for the way is sprinkled with rocks in fantastic shapes. The II4-miles over the prairies in the afternoon afforded far better going than the similar stretches traversed Saturday into Denver, but there was one great drawback; the deep holes caused by recent rains, sometimes across the highway, but oftener in the lengthwise. One of these brought the Simplex to grief, thereby erasing the last perfect score in the Detroit class.

The weather to-day was again clear for the seventeenth time without a break since Detroit was left. Rain is greatly needed, however, as all the wheels are dry and some may not be able to stand the strain much longer. Although the population of this town is but a little over 500, and is the smallest stop on the whole route, the natives entertained the visitors to the best of their ability.

OAKLEY, Kan., July 28.—Ten perfect scores remain, nominally, to-night in the sixth annual reliability touring contest of the American Automobile Association, but the feeling is that nearly, if not quite all, of them will be wiped away by the time the tour ends at Kansas City two days hence. It was the Maxwell, driven by E. G. Gager, in the Glidden tour division, that fell by the wayside to-day with a broken spring, causing a

penalization of 8.5 points. Another Maxwell, 107, driven by Charles Gold-thwaite, in the class contesting for the Hower trophy, was also penalized for a similar replacement. This car received 7.7 demerits. The deferred penalty of the Glide yesterday was announced as 28.8 points for labor and materials.

As the tour approaches the crucial

tunity for rest. The pace has been such that many of the observers fell asleep on the cars when good stretches of road were encountered.

The first thirty miles out of Hugo, Colo., to-day was the toughest so far on the tour, the prairies roads being full of cavernous washouts and muddy creeks with precipitous banks. Judgment in



CHECKING STATION AT FORT DODGE, IOWA

stages, any amount of jockeying is going on, not all of it of the fair sort. From present indications the finish promises to be the keenest on record. There are mutterings against several of the clean score cars, and evidence is being collected to show that some of them have not lived up to the rules. Chairman Hower, realizing, perhaps, that his methods have been rather autocratic, is extending invitations to the press and others to ride on the special train.

Now that the tourists are approaching Kansas City, the finish line, the success of the tour becomes more apparent, but the holding of another depends upon better arrangements, with more oppor-

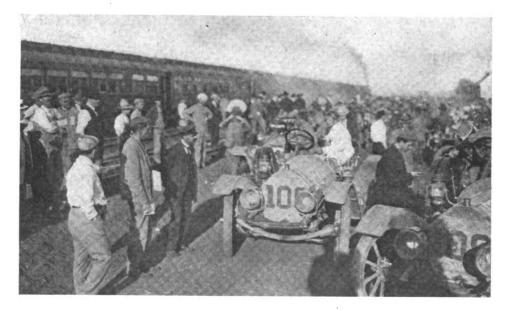
driving was the factor that told. During the early stages of the run to-day the passengers were frequently compelled to alight from the cars to lighten them and help to push the machines up steep banks. The day's run of 165 miles, from Hugo, Colo., to this city, brought the total mileage up to 2,246 leaving 413 miles yet to go before the tour ends.

The tourists crossed the Kansas State line about noon to-day, and the soil of nine States is now on the wheels. The Hupmobile, after Tuesday's accident, decided to quit the tour entirely, while the Brush, which was also acting as a non-contestant, and met with an acci-

dent the same day, has not been heard from since it returned to Denver for repairs. Just before dark to-day the little Maxwell 6, which is acting as a press car, arrived in town towing the 70 hp. Thomas, which was disabled. The Thomas, which was the highest powered car in the tour, broke its engine frame twenty-five miles out, when it hit a ditch while going at high speed, and was helpless on the roadside until the Maxwell went to its assistance. Gus

smith's, it is doubtful if it can continue. It is stuck on the road several miles out, awaiting the arrival of a tow in the morning. The Glide arrived here under its own power late to-night, and necessary repairs to broken spring seats on the front axle will make the addition to its already high penalties a heavy load.

Five motorists in the Rapid truck arrived here this evening, after having gone to the top of Pike's Peak with that vehicle. The five were overtaken by



LEAVING KEARNEY, NEB., IN THE EARLY MORNING

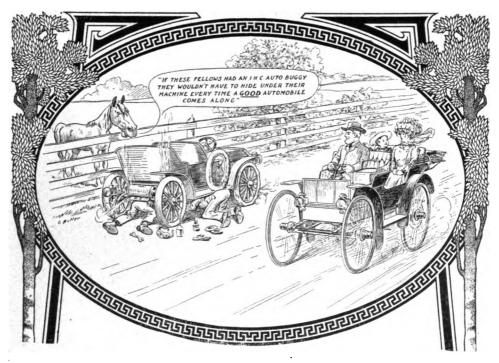
Buse, Jr., its entrant, has withdrawn the car and shipped it back to Buffalo. The Maxwell press car was overloaded with the occupants of the Thomas car, the disabled Glide and the Studebaker press car, which also met with an accident. Bad ditches were responsible for all the accidents, but no one was injured, although the photographers and reporters in the Studebaker car were thrown out of the machine and scraped up a bit.

The Mason broke its cross steering rod, causing the wheels to spread. As the car can only be repaired at a black-

darkness about a mile from the top, and started out for the summit to get help. They lost each other, and spent the night miserably in the rain, wandering about. At dawn they managed to meet again at the truck, and two took it to the top, the other three being so exhausted that aid had to be sent to them. The men, all New Yorkers, are T. P. Myers, Fred Vibbert, Frank Grogan, William Simonds and James Mack. The truck will travel the prairies all night, hoping to catch up with the Gliddenites tomorrow.

The Happy Farmer-Motorist

If any doubt is entertained regarding the acceptance by the farmers of the motor vehicle as a welcome adjunct to farm life, the accompanying illustration will remove it. It is taken from the adlation machine shown at the roadside. In the reading matter of the advertisement the assurance is given that the Blank Auto Buggy "is made to negotiate country highways. The high



EVEN THE HORSE LAUGHS

vertisement of a harvester company of international reputation, and the prosperous farmer, shown in his high-wheeled "benzine buggy," is having the laugh on the poor fellows who are wrestling with the internals of the regu-

wheels give plenty of road clearance, the solid rubber tires elimnate tire troubles and expense, and the motor generates abundant power. That's why it travels right along without trouble."

Indiana's Big License Business

The Indiana Secretary of State issued 3,200 automobile licenses from April 1 to July 9. There were 2,951 issued during the three months ended June 30, and 249 were issued during the first eight days of this month. In the same length of time last year 1,559 licenses were issued, showing that the automo-

bile business in the Hoosier State has nearly doubled during the past year.

The new Russian military dirigible balloon Rossia made its first ascent July 22, from the balloon park in the suburbs of St. Petersburg.

Lays Aside Crutches to Fly Across Channel

Stealing a march on his aeronautic rivals, Louis Bleriot, one of France's most daring aviators, successfully flew in a heavier-than-air airship from Calais, France, to Dover, England, on Sunday, July 25. He is thus the winner of the London Daily Mail prize of \$5,000, offered to the first aviator to pilot an aeroplane across the English channel.

While it was generally known that Bleriot was contemplating an attempt to cross the channel, his wonderful flight on Sunday morning came as a total surprise, and the result was a very slight ovation at the start and finish.

Arising very early in the morning, Bleriot tested out his machine by a few trial flights, and then waited for sunrise, one of the conditions of a trial for the prize being that the flight should be made between sunrise and sunset. At 4.30 the sun was just showing itself above the horizon, and the signal to start was given. The monoplane was sent up immediately to a considerable height in order to clear the wires which ran along the edge of the cliff. Being clear of these, Bleriot brought his machine down to within about 250 feet of the water and settled down for a steady flight.

A short way out from land Bleriot overtook and passed the torpedo boat destroyer Escopette, which had been placed at his disposal by the French government, and which left the French coast shortly before the monoplane. Traveling at a speed of just a little under a mile a minute, the aeroplane was soon in mid-chanel, and then for about ten minutes Bleriot was out of sight of land, and had even lost sight of the accompanying war vessel. The experience felt by the aviator is best told in his own words:

"Ten minutes are gone. I have

passed the destroyer, and I turn my head to se whether I am preceding in the right direction. I am amazed. There is nothing to be seen—neither the torpedo boat destroyer nor France nor England. I am alone; I can see noth-



LOUIS BLERIOT

ing at all. For ten minutes I am lost; it is a strange position to be in—alone, guided without a compass in the air over the middle of the channel. I touch nothing, my hands and feet rest lightly on the levers. I let the aeroplane take its own course. I care not whither it goes."

However, the green cliffs of Dover Castle were soon sighted, but they were away to the west of where a landing was to be made. Some rather difficult manœuvres were necessary in order to get the machine headed in the right direction. The wind had increased considerably, but aside from decreasing the speed of the machine, no change was experienced in the steady running.

Turning west, Bleriot approached what is known as Shakespeare Cliff. An opening in the cliff was found, and then describing a half-circle, the machine was piloted into the opening, and Bleriot found himself flying over the dry land of a foreign country. The landing was the most difficult part of the flight. On the first attempt at landing the wind caught the machine and whirled it around two or three times. Bleriot immediately stopped the motor, and the machine rapidly came to earth, with a force so great that one of the wings was broken.

The distance across the English Channel, from Calais to Dover, is about 21 miles, and Bleriot's time for the trip was 23 minutes.

An evidence of the daring possessed by Bleriot is the fact that, in order to make the flight he had to lay aside a pair of crutches, which he had been using as a result of an accident he had experienced in a flight a short time ago. Before starting Bleriot turned to his friends and said, "If I can't walk, I will show the world that I can fly."

Bleriot's admirers are particularly joyous over the manner in which he stole a march on his rivals, Hubert Latham and Count de Lambert. The former, deceived by the high winds of the day before, thought that a start would be impossible Sunday morning, while Lambert had gone across to England to pick out a likely place to land.

The monoplane, seen at close range, is more like a great dragon fly than a bird. The wings and rudder are of material that looks like vellum, seems

fragile and unsafe. It was hard to believe that so comparatively small a thing had carried a man across the Channel. The machine will be on exhibition in London for some little time.

Englishmen very naturally are doing some deep thinking since the flight, and it is realized that Great Britain's insular strength is no longer unchallenged, that the aeroplane is not a toy, but a possible instrument of warfare, which must be taken into account by soldiers and statesmen, and that it was the one thing needed to wake up the English people to the importance of the science of aviation.

American aeronauts, the Wright brothers, Curtiss and many others, received the news of the channel flight with deep interest. "Bleriot's successful flight was splendid," said Wilbur Wright, when he received the news. "I know him well, and he is just the kind of man to accomplish such an undertaking. He is apparently without fear, and what he sets out to do he generally accomplishes. This recklessness makes him anything but a good aviator, however, for he lacks entirely the element of caution. His speed was excellent, and his machine made faster time than I thought it capable of negotiating."

Pittsburg Is To Be Clean

Pittsburg, Pa., motorists who neglect to equip their cars with drip pans are liable to get themselves into trouble these days, for the ordinance officers have started a crusade against owners of automobiles whose machines are not provided with these pans. For several weeks the officers have been warning automobile owners that they must comply with the city ordinance which prohibits the throwing of oils or grease, or the dripping of such matter, on the city streets.

Motordrome Project for Atlantic City

There is reason to believe that Atlantic City, N. J., will have an immense automobile track before long. Plans have been made and a company practically formed to put the enterprise through, and while automobile racing will be the predominating sport, a number of others will be included.

The proposed automobile course, which is to be two miles in length, is to be located at a place called Chelsea Heights, near the city by the sea, and when completed, its promoters say, it will surpass in size and equipment the famous Olympia grounds in London.

The track itself is to be an eliptical one, two miles in length, while the infield is to be prepared for Olympian games, horse shows, football games, etc. Commodore Louis Kuehul, of the Atlantic City Yacht Club, is at the head of the enterprise, and, it is said \$800,000 will be spent in filling in the ground and almost \$150,000 in making the track.

The track will have 125 feet width at the banked turns and 150 width in the stretches. It will be built on a concrete foundation and a grand stand with a capacity of 25,000 people is to be erected.

The plans also include an immense exhibition hall, a huge garage, capable of holding 1,500 cars, a hotel, a club house and chauffeurs' quarters. It is stated that the track will be opened in the spring of next year.

Mt. Washington Road Open to Automobiles

Motorists can again use the road to the summit of Mt. Washington, which was formerly closed to them. This road, which was the scene of the "climb to the clouds" contests of several years ago, is a carriage road, owned by the Mt. Washington Summit Road Company, and it will be open to automobiles on Saturdays and Mondays, the days when travel by carriages is lightest.

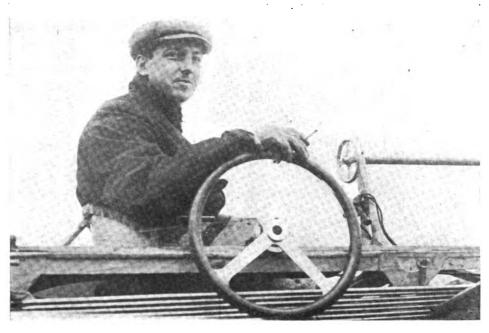
It will be remembered that the steep grades of the carriage road were first negotiated on September 13, 1903. The great dangers attendant upon the "Climb to the Clouds" resulted in the closing of the carriage road to motor cars altogether for several seasons, save one day during each summer, but many enthusiasts who are anxious to undertake the ascent in their cars and are perfectly willing to sign the necessary document absolving the owners of the carriage road from all blame in case of accident will be glad to learn that they may do so on the days mentioned.

Latham Again Falls Into Sea

Again Herbert Latham has attempted to pilot his aeroplane across the English Channel and failed. His second trial at reaching England via airship was made on Tuesday, July 27, and victory was snatched from his grasp just before he reached the goal. When about a mile and a half from Dover, with everything apparently going nicely, Latham's motor ceased running, and his aeroplane fell to the sea, much to the

disappointment of the vast throngs which crowded the English shores.

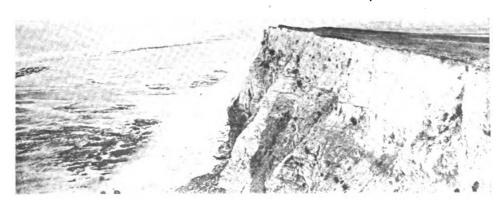
A dramatic scene was furnished by the disastrous ending of the flight. Just before 6 o'clock in the evening, the clamor of sirens and bells on the ships in the harbor of Dover notified the town that another Channel crossing was to be attempted. In a marvelously short time the water front, the piers, and the cliffs behind the town were crowded. Thou-



HERBERT LATHAM

sands gathered there, many of them glasses, and cameras. Soon two French carrying telescopes, marine and field torpedo boats, which preceded the aero-





LATHAM'S FIRST UNSUCCESSFUL FLIGHT FROM THE COAST OF FRANCE

plane, were seen approaching at a furious pace, thick clouds of smoke puffing from their funnels.

Soon after 6 o'clock an aeroplane was seen headed in a straight line for the center of Dover. The rapidity of its flight was evidenced by the quickness with which it grew larger and assumed birdlike outlines. Suddenly it began to

slacken speed, at the same time gliding toward the surface of the water. It fluttered a few times and then dropped with a lateral incline to the sea.

The warships soon went to the rescue, and although it was found that Latham had sustained several slight injuries, he was not much the worse for his experience.

Aerial Transportation Company Formed in New York

The New York Aerial Manufacturing and Navigation Company has been incorporated at Albany. It is empowered to carry on the business of transportation of passengers, animals, freight, baggage and other commodities by airship, aeroplanes and other vehicles. Its capital is \$250,000.

The directors are residents of Brooklyn. One of them is quoted as saying that the object would be the making and selling of aeroplanes and dirigible balloons and the establishment and maintenance of passenger and freight transportation lines of airships of both varieties.

Coastwise

Down the coast to Highland Beach, Running by the shore, Seabright is the turning place, See the bridge before. All the world is happ, Sunshine everywhere; Take it slowly at the turn, Never mind his dare.

Now we're over, let her out,
Just a little more;
We could go somewhat faster,
Crawling is a bore.
See the roadway just ahead,
Have you ever seen
A rarer place to try your
Little old machine?

Another notch will do it,
Driving simply great;
We'll make Atlantic City,
And dinner won't be late.
Long Branch, Deal Beach and Allenhurst
Passed us as a glance;
At Ocean Grove they ended
Our delightful dance.

Le Envoy
We did not dine on Jersey's shore,
Both ends wouldn't meet;
Jersey fines explain to you
Why we did not eat.
Hugo Von Hauck.

Wrights Perform New Feats

Those skeptics who felt that the Wright brothers were being overshadowed by the sensational performances of aviators on the other side of the water, were made to realize on Tuesday, July 27, that the Wrights still have a tight grip on premier aeronautic hon-Orville Wright added a world's record to his aerial history, when he flew in his aeroplane with Lieut, Frank P. Lahm, of the Signal Corps, as a pessenger, for I hour, 12 minutes and 40 seconds. The best previous record was made by Wilbur Wright last year at Le Mans, France, when he flew with a passenger for I hour, 7 minutes and 31 seconds.

Besides establishing the new record, Orville more than met the government's requirement that he remain in the air with a passenger for one hour. Another performance demanded by the government before it takes possession of the machine, is a ten-mile cross-country flight at a minimum speed of forty miles an hour, with two men aboard.

President Taft was a very enthusiastic onlooker, and when Wright and Lahm brought the aeroplane to earth after their thrilling ride, the President congratulated them very feelingly. Included among the other notables who viewed the performance were Secretary of War Dickinson, Postmaster General Hitchcock, Secretary of Commerce and Labor Nagel, as well as a large number of prominent aeronauts of Washington and New York.

The daily visitors at Fort Myer had about given up hopes of witnessing a flight on Tuesday, as the wind seemed to be cutting up all sorts of capers. About 6 o'clock in the evening, however, the wind died out almost completely, and the machine was then taken out of its shed and put in readiness. Orville did not waste time with many prelimi-

naries. He gave Lieut. Lahm a few instructions, and then the aeroplane was quickly launched.

For 300 yards it was feared that it would not rise successfully. Orville, however, evidently knew where to catch the advantage of the light breeze that was blowing, for when near the end of the field he lifted the forward planes and the machine shot upward. For the first two or three laps the aeroplane was not more than thirty feet up, but on the fifth circuit of the parade ground Orville decided to try a higher altitude. The machine, under his guidance, rose to about 125 feet, but it did not remain long at this height, which was the greatest attained during the flight.

During the seventy-seven and one-half circuits of the field the average altitude of the machine was about fifty feet. At this level Orville found the stillest air, although there were cross-currents in plenty. This was especially true of the west side of the parade ground, near the cavalry stables, where the breeze appeared to bank up, causing flurries. Several times the aeroplane dipped and rose when flying down this stretch, like a ship in a heavy swell.

Orville did not attempt any of the evolutions with which he has inspired the crowds in his flights alone. He did, however, negotiate several short circles, in which the aeroplane behaved admirably, showing not the slightest difficulty. An especially quick turn was made in the twenty-fifth circuit, after which the machine swung far out over the rough country to the south.

The acquisition of the machine throughout the trial was perfect. With the exception of the slight rocking on the west side of the field, the aeroplane rode true and was under perfect control.

The excitement was very intense

when the hour limit was reached and it was realized that one of the government requirements had been fulfilled. Wright and Lahm were cheered to the echo. The President applauded heartily with the rest. As minute after minute passed and it was seen that Wright had no intention of stopping, the cheering broke out afresh and continued for some little time.

When Orville decided to come down he swept over the field several times so low as almost to touch the ground in his turns. On the seventy-fifth circuit he swung in so close to the starting derrick that he missed a collision with it by little less than a foot, and the spectators gasped at the nearness of the disaster. After two more swings around the parade ground the aeroplane settled to the ground, but the engine had not been shut off, and it rose again. As it touched a second time, however, Lieut. Lahin stopped the propellers and the machine came to a rest close to the balloon shed.

The descent was a perfect success and the aeroplane was not damaged in the slightest. When the two men climbed from their seats both were somewhat stiff from maintaining their position for so long a time. Otherwise they showed no indications of having together eclipsed all similar flights.

Lieut. Lahm was particularly pleased with his sensational ride. "The absolute control maintained by Mr. Wright over the machine is remarkable," he said. He directs it the way a skilful jockey would direct a race horse. When we dipped or rose the descent or ascent of the machine scarcely had begun when his wrist moved the levers to meet it. It was the same way in making the He seemed instinctively to know what was going to happen next and to meet the conditions almost before they had met us. I am convinced of on thing, however, and that is that no one without experience can jump into

the aeroplane and fly. On the other hand, its management is not nearly so difficult or intricate as I had supposed. I'm delighted with the manner in which it behaved and its possibilities.

Orville Wright's best achievement with a passenger aboard, previous to his record flight this week, was 9 minutes, 6 1-3 seconds. This was during a trial flight made over the Fort Meyer drill ground on September 12, 1908, when he circled the field for a distance of 5.88 miles with Major George O. Squiere, acting chief signal officer of the army, as his passenger. During the same week he made a flight of a fraction over six minutes with Lieut. Frank P. Lahm as a companion.

It was in attempting to better these two experimental flights that he met with the accident on September 17, 1908, which resulted in the death of Lieut. Thomas E. Selfridge of the Signal Corps and in injury to himself.

On this occasion the machine, after completing two circuits of the drill ground, was dashed to earth from a height of seventy-five feet by the breaking of one of the propeller blades.

Gave Bishop \$5,000 to Buy Automobile

Worcester, Mass., July 28.—At the close of the retreat for the priests of the Catholic diocese of Providence, at Holy Cross College, the Rt. Rev. Matthew Harkins, Bishop of the diocese, was presented with a check for \$5,000, to be used for the buying of an autotomobile. The presentation was made in behalf of the priests of the diocese by the Rt. Rev. Thomas Doran, of Providence, vicar general of the diocese. The bishop said that had he known that the project was afoot he would have stopped it, but being the gift was expressive of the desire of the clergy to see him more often he would accept the new instrument of work with pleasure.

Road Conditions in New York State

On the road from Syracuse (N. Y.) to Geneva there is a bad stretch of road through Seneca Falls and Waterloo which can be avoided by taking the road north from Geneva along the New York Central Railroad tracks about 3½ miles out, turning east at right angles to Free Bridge. Going from Oswego to Binghamton it is advised that the south side of the river be followed. Between Little Falls and Fonda the road is being turnpiked.

Roadwork is in progress between Chili and Churchville. As a detour it is suggested that tourists take the westerly road half a mile east of Chili and follow to the end of the road, turning to the left, which will eventually bring the tourist back on the main Buffalo road.

All the roads around Albany are reported in good condition and the entire route from Auburn to Syracuse is in fine shape.

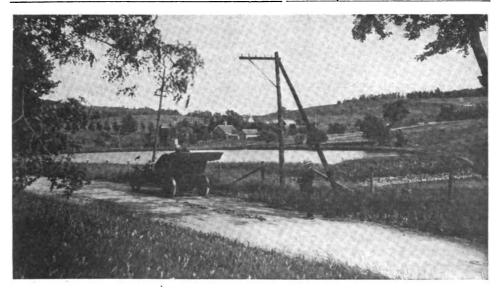
Novel Prizes in Rochester Club Run

Despite threatening weather at the start on Thursday, July 22, twenty cars, carrying sixty-five persons, started in the first annual tour of the Automobile Club of Rochester, N. Y. The tour, which is a sort of pleasure ride, with several trophies offered to add interest to the affair, will take the participants through some of the most picturesque parts of the Empire State.

The 1909 touring trophy will be given to the car making the best performance

checking in and out at noon and night during the six days. Other prizes will consist of trophies for the biggest "grouch" on the trip, the biggest eater, the earliest ariser in the morning, etc.

The French balloon Emulation du Nord landed in the Grunewald, near Berlin, on July 22. It ascended with twenty-five other balloons from Brussels, and made the journey at an average rate of twenty-six miles an hour.



SCENE ON THE HILL WHERE THE RICHFIELD SPRINGS CLIMB WILL BE HELD

Low Priced Cars and the Tariff

A welcome variation from the everlasting debate on the tariff was made in Congress recently, when Judge Adamson, of the Fourth Georgia District, took advantage of the fact that the automobile schedule had been reached to set forth his views on the general subject of motor vehicles. His speech was really an appeal to the conferees on the tariff bill to remove the duty on low-priced machines, so that they will be within reach of the farmer and every-day citizen.

In his letter to the conferees on this subject, Judge Adamson said:

"The Senate amended the item in the Payne bill so as to increase the duty on automobiles 5 per cent. In adjusting that difference, the house is expected to concur with the Senate amendment, which, under the rule, may be done with an amendment imposing any condition agreed upon in this case. I suggest that the amendment agreed upon as the condition shall be that the duty on low-priced automobiles, that is, the duty on automobiles costing less than \$500, shall be greatly reduced, if not entirely removed.

"My suggestion is based on the following reasoning: In the cities where the streets are wide and the teams citytrained the introduction of automobiles causes little inconvenience to people with teams, but out in the country it causes great inconvenience and annoyance, and the teams, not accustomed to anything of the sort, the people suffer great inconvenience, annoyance and danger from the few automobiles by those able to pay high prices, to the practical exclusion of all the teams.

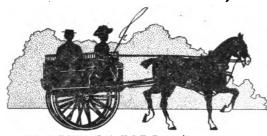
"Of course, as the automobiles grow more numerous, and the teams become more accustomed to them, this condition will gradually disappear; but the process will be slow, and thousands of country people who pay for the building of country roads will virtually be deprived of their use pending the change.

"There is no doubt that the automobile has come to stay, and the sensible thing to do is to bring them within reach of the people who most need means of rural locomotion and transportation. At present, all the inducements are to manufacture high-priced machines, and it is necessary to stimulate our home manufacturers to produce an efficient practical machine at a price low enough for popular use. If you will reduce the duty on machines which cost less than a vehicle and a team will cost, then our manufacturers rather than suffer foreign machines to supply the popular demand, will give their attention to producing a machine which the common people will be able to buy and use.

"In line with this idea, I note that several States contemplate a declaration of the law of the road modified and adopted to the conditions produced by the introduction of new character of vehicles, some of them proposing taxation and other regulations. It is to be hoped that in all such legislation the same distinction will be observed by exempting from taxation the low-priced machine in order to promote the same end, inducing manufacturers to produce a low-priced machine to enable the common people to enjoy the benefits of improved vehicles and the use of the roads.

"The common people must either cease to travel, abandon the use of their highways, or they must adopt the same method of travel. They must either use self-propelled vehicles or walk. If automobiles are to have the right of way over the road, certainly we ought to do everything in our power to place them within the reach of those who stand most in need of transportation."

Automobile Topics Tour



The Irish Jaunting-Car

TRUFFAULT-HARTFORD SHOCK ABSORBER

THE STANDARD OF THE WORLD

Is not recommended for comfortable riding; and yet there's almost as much difference between an automobile equipped with the TRUFFUALTHARTFORD Shock Absorber and one without, as there is between an automobile and a jaunting car.



Loose Sheets of This and Previous Sections May be Obtained by Remitting Ten Cents for Each

A. A. A. TOUR 1909

Section 3—Madison to Minneapolis

From state capital to state capital—from Madison, Wis., to St. Paul, Minn. and a few miles beyond, to Minneapolis, is the portion of the route that the 1909 A. A. A. tour covered this week. The Mississippi River was crossed at La Crosse, and the tourists then entered upon the last part of their Northern trip. The details follow:

Leaving Park Hotel, south on Carroll Street; left on State Street. End of street, left; block further turn right. At fork, 5 miles, right; end of road, left to Pleasant Branch. Fork, keep left to Ashton. At cross-road beyond fork, left. Direct through Springfield Corners. Fork, keep right. End of road, left; next fork, left. End of road, left; fork, right. Again right; fork, left. Crossing bridge turn right to Sauk City (24.9 miles).

Through Prairie Du Sac. Left with wires on right side of road only. Right; cross-roads, left. End of road, right. Direct, taking right turns; at fork, left. Right at cross-roads. Cross bridge and along Second Avenue; left on Oak Street in

Baraboo (42.1 miles).

Left on Fourth Avenue; right on Broadway. Two blocks, turn left on Sixth Avenue. End of road, right; cross-road, left. Pass one fork, left at next into

Abelmans (51.6 miles).

Cross bridge. Turn right over another bridge. Over R. R. crossings and bridge, and at end of road, left. At cross-road, left, and at next cross-road, right. At fork, right, and at cross-road, left through Reedsburg. End of brick pavement, right. Go block and left. Right at cross-road; at fork, left up hill. Direct, through Le Valle. End of road, right; end of road, left. Top of hill pass road on left and sharp curve left down hill. Cross-road, left. 5.4 miles beyond, left through Wonewoc (76.5 miles).

Right at two forks; at third go left. End of road, left, and end of this road, right. Right at station at Union Center, and three blocks beyond, left. One block, turn right; end of road, left. End of this road, right. Mile after crossing bridge, right. After crossing several bridges and R. R. crossings, go through Elroy into

Wilton (104.9 miles).

Right at fork. End of road, left; fork, right. Cross-road, right. End of road, right. Left turn through Norwalk. Block and right; two blocks and left. Left at sign, and at end of road, right. Fork, left. Eight miles beyond, right turn on Douglas Street. Left on Wolcott Street; right on East Avenue, Sparta (125 miles).

End of road, left. Right at cross-roads, and after passing two cross-roads turn left at next. End of road, left through Neshonoc and Salem. At R. R., right. End of road, left into

La Crosse (154.4 miles).
South on S. Fourth Street, right on Pearl Street, left on S. Front Street, right over bridge. Right at fork. End of road, left to La Crescent. Cross-road, left; fork, right; fork, left; fork, right; fork, left into Ridgeway (179.8 miles).

Right at cross-roads through Witoka. End of road, left. Left at Broadway, and through Winona. Cross-road, left. End of road, right. Fork, left through Stockton. Fork, left. End of road, right through Lewiston. End of road, left. At R. R., right to Utica. Take first right. End of road, left. Left on Whitewater Street. Through St. Charles, Dover, Eyota and Chester into

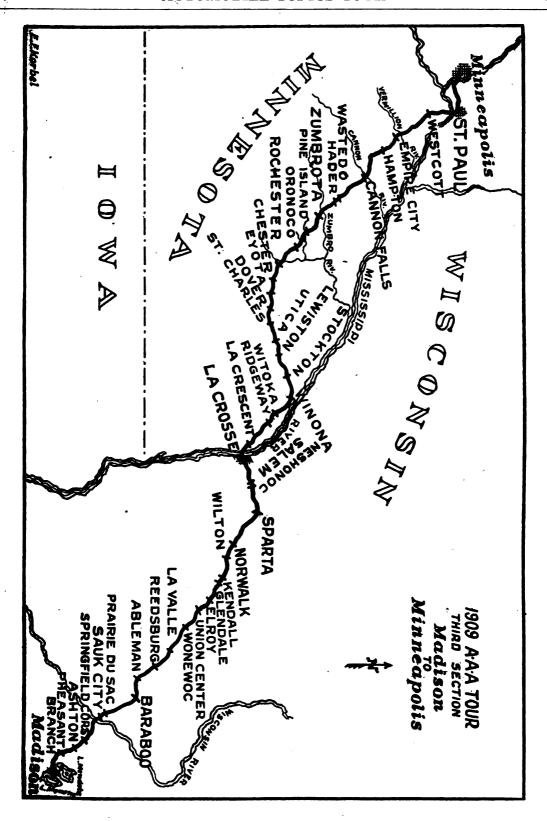
Rochester (237.3 miles).

End of pavement, right. End of road. left. Fork, left. End of road, left through Oronoco. Fork, left; fork, right. End of road, left to Pine Island. Cross-road. right. End of road, left; end of road, right; end of road, left. Cross-road, right through Zumbrota. At R. R. turn left. Fork, left; fork, right; fork, right, fork, right; fork, right through Hader; fork, left; fork, left to Wastedo; fork, right through Cannon Falls (282.5 miles).

Right; one block; left. Cross bridge; left. Right at R. R.; block further, cross R. R.; left. Fork, right to Hampton. Continue into

Empire City (296.8 miles).

At second cross-road, right to Westcott. Fork, right on Dodd road. Right on W. Augusta Street. Left on Stryker Avenue, right on W. Winifred Street. End of street. S. Wabasha Street. Over bridge and along Wabasha Street. Right on E. Sixth Street, left on Robert Street, left on E. Seventh Street, right on Cedar Street. Pass in front of Capitol, St. Paul. Cross bridge and continue into Minneapolis (332.2 miles).



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1910 Announcement

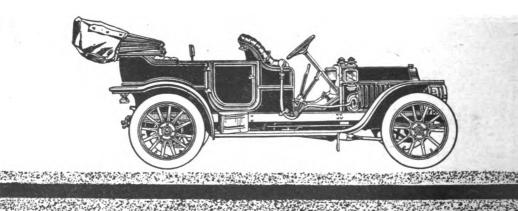
The clearest evidence of the perfection of Peerless construction is shown in the fact that for the past four years only minor changes have been made, each successive season's output being a carefully revised and refined edition of its predecessor.

Peerless has never been a car of single features—its charm lies in its perfect unity mechanically, its rich simplicity of contour and appointments, its easy riding qualities and the degree to which noise has been eliminated.

Models 27 and 28 Touring Cars, Limousines, Landaulets, Roadsters

Catalog E Describing the New Models Now Ready

The Peerless Motor Car Company 2463 East 93rd Street, Cleveland



Mention "Automobile Topics" when writing.

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Grand Rapids Has a Taste of Racing

Automobile racing enthusiasts of Michigan had the opportunity on Friday, July 23. of witnessing one of the most exciting motor car meets held in their State, when a number of events were run on the Comstock Park track at Grand Rapids. Louis Chevrolet, the winner of the recent Cobe race in Indiana, was the hero of the day, driving his Buick to victory in three of the five automobile events on the program.

The track was not in excellent condition for automobile racing after a heavy rainstorm on the day previous to the running of the races, but despite this, Chevrolet piloted his car around the course in the 50-mile event in close to record time. He negotiated the distance in 51 minutes and 22 seconds. Chevrolet also won the five-mile stock chassis race for cars listing between \$1.251 and \$2,000, as well as the five-mile free-for-all stock chassis event.

In the first race of the day, which was for stock chassis listing from \$851 to \$1,250, De Witt, of the Buick racing team, had little trouble beating Doughty's Hupmobile and Vandenberg's Buick, and finished the five miles with a substantial lead in 5.58. Peter Hart, also with the Buick racers, was in this event, but had to retire, after going a

few miles, when his car developed trouble. Lewis Strang's Buick met with an accident during the second race, and the winner of the Savannah, Lowell and Briarcliff races had to use a substitute machine, which did not run as well as his own car. As a result Strang had to be satisfied to act as runner-up to Chevrolet in the five-mile race for cars listed at from \$1,251 to \$2,000. Chevrolet's time was 5.13.

The Cobe trophy winner had little difficulty winning the five-mile free-for-all from Strang in 5.17. De Witt was a close third. Considerable interest was taken in the Western Michigan Amateur derby at five miles, which was a runaway for Dean in a Bryden, who finished the race in 6.08. Vandenberg, Buick, was the second and Doughty, Hupmobile, third.

The principal event on the program, the fifty-mile race, attracted considerable attention from the 3,100 persons who witnessed the events. Chevrolet went to the front at the start and was never headed. After completing the fifty miles he continued circuiting the track in an effort to beat the one-hundred-mile record, but on the eighty-first mile he retired with a punctured tire and an exhausted gasolene supply.

Algonquin Hill-Climb Entries Closed

Entries for the fourth annual hill-climb of the Chicago Motor Club, at Algonquin, Ill., on August 5, were closed on Friday, July 30. The rules formulated by the officials of the club some time ago had to be completely revised to comply with those required by the American Automobile Association. The new rulings call for price and piston displacement details, whereas only piston aera was used in the card announced a month ago by the club.

Under the new arrangement there will be twenty-two events in all, the field being split up into classes instead of divisions and the classes are subdivided into divisions instead of classes. There will be several events for motor buggies and electrics.

The new classifications are as follows:

Class A, open to any stock car fully equipped and governed by the following prices. Winner to be the car making the fastest time for both hills: Division 1,

\$4,000 and over; division 2, \$3,001 to \$4,000; division 3, \$2,001 to \$3.000; division 4, \$1,251 to \$2,000; division 5, \$851 to \$1,250; division 6, \$850 and under. No car shall compete in any division above than that to which its price entitles it.

Class A 2—Same as class A, except that the winner will be determined by the club formula.

Class B, open to any stock chasis (A. A. A. rules) and governed by the following table of piston displacement and minimum weight. Winner to be decided by time only:

Weight
Piston displacement lbs.
Division 1—451 to 600 cubic inches...2,400
Division 2—301 to 450 cubic inches...2,100
Division 3—231 to 300 cubic inches...1,800
Division 4—161 to 230 cubic inches...1,500

Division 5—160 cub. inches and under. 1,200 No car shall compete in any division above than that to which its weight entitles it.

Class C, open to any chassis made by a factory which has produced fifty cars, not necessarily of the same model, during the twelve months prior to the event, winner to be decided by time only.

Class F, the same as class C, but having the following limitations as to size: Division I, for cars having a total piston displacement not to exceed 390 cubic inches; division 2, for cars having a total piston displacement not to exceed 202 cubic inches. Time to decide the winner.

Class C. division I, open to motor buggies, wheels 36 inches in diameter or over, with solid tires; division, open to electric. Time only to decide the two divisions.

Atlanta Preparing for a Big Show

Although still some time distant, active work has been started on the National Automobile Show, to be held in Atlanta, Ga., November 6 to 13, and it is expected that the application blanks for space will be distributed in a few days. The show, which will be the first big exhibition of motor cars in the South, will be held in the Auditorium Armory, one of the finest buildings below Mason and Dixon's line. The building is owned by the city of Atlanta, and was erected for the sole purpose of drawing conventions to the live Georgian city.

Extensive plans are being made for a decorative scheme that will be decidedly new, and will supply a proper setting for this, the first exhibition of 1910 models. During the week of the show Atlanta will be one of the liveliest automobile towns in the United States. Coincident with the holding of the show will be the opening of the new automobile track now being constructed, together with endurance contests through the various counties of Georgia, with prizes for the best stretches of road, and a reliability trip from New York to Atlanta.

The general management of the show, which is under the auspices of the National Association of Automobile Manufacturers, will be in the hands of Samuel A. Niles and Alfred Reeves, while the Atlanta end will be cared for by such well-known people as Asa G. Candler, president of the Chamber of Commerce; E. W. Gans, John S. Cohen, Clark Howell, C. R. Ryan, Edward H. Inman, president of the Fulton County Automobile Club; S. C. Dobbs, J. T. Fitten, E. M. Hanson and others.

Applications for space should be made to the headquarters of the National Association of Automobile Manufacturers, 7 East 42d Street, New York.

Richfield Springs Race Postponed

The Richfield Springs (N. Y.) hillclimbing contest has been postponed from July 31 to Saturday, August 7, because it conflicted with the twenty-four hour race to be held at the Brighton Beach track to-day. As several manufacturers want to participate in both events a postponement was necessary.

Spending the Highway Money

C. Royce Sawyer, treasurer of Orleans County, N. Y., recently gave out the figures representing the money to be expended this year for highway purposes. Under the Fuller law the State highway money has been received and distributed to the various towns as follows:

Albion, \$1,100.24; Barre, \$1,425; Carlton, \$1,533.30; Clarendon, \$750;

Gaines, \$782.18; Kendall, \$919.07; Murray, \$1,575; Shelby, \$1.052.47; Ridgeway, \$1.287.70, and Yates, \$924.49, making a total of \$11,349.45.

This money was raised under the State and section, 101 of the highway law. Under the Higbie-Armstrong act the amount raised by the county by a sale of bonds is \$22,000.

A Preventer of Joy Rides

A Brooklyn man has produced what he calls the only practical solution of the joy-ride problem. His device is simply a strip of very heavy manilla paper, which is fastened to the rear tire and rim by means of a corrugated wire which perforates it in four places, a lead seal on the end of the wire being sealed by a nickel-plated hand press which can be carried in the pocket, if desired.

The owner of a machine, suspecting

his chauffeur or the night manager of his garage, seals his machine and goes home confident that it will stay in the garage until he orders it out. The paper and wire about the tire and rim of the rear wheels, although strong enough to withstand all the moving and dampness incident to washing and cleaning in a garage, will not stand the friction of a ride of more than two blocks without going to pieces.



MOTORING IN A NEBRASKA FLOODED DISTRICT-R. E. SABERSON IN A RAMBLER CAR

Pitfalls For Tire Users

That ninety per cent. of the old tires which are re-treaded ought not to be, as far as an owner's interests are concerned, is the opinion of one of the Fisk Rubber Company's experts. The manufacture of rubber and the repairing of tires is a science that takes years to master, yet apprentices will work a few weeks in a garage or tire repair shop. and, thinking they know it all, branch out in business for themselves. Some of them will undertake to re-tread any old worn-out shoe that is brought to them, for if they were conscientious and advised a customer that the repair would not be worth while, they would starve.

An owner may have a casing that has given him a few thousand miles of good service, and is still in good condition. He consults the manufacturers of that tire in regard to having it re-treaded. and they advise against it on the ground that the inner fabric is too worn out. and affirm that a new tire would be more economical for him. The motorists, unheeding, then goes down the street and into the cellar where an exclam man or car conductor poses as a tire repair expert. The latter informs the visitor that the tire company is all wrong. As a result, where the "repairer" does the job, as a rule, only the poorest, cheapest quality of scrap-heap rubber is used and the crudest methods employed. Should the old, played-out. re-treaded tire last only a week or so, due to improper vulcanization and curing, the motorist has no redress from the repair man, who does not guarantee his work, and coolly tells the owner his tire "was no good in the first place." The unscrupulous repair man has no reputation to lose, and is not greatly worried.

The great essential point in the life of a tire is proper inflation. Users of Fisk

tires who have driven them 5,000 miles or more properly inflated, frequently bring them back to the Fisk Rubber Company for re-treading in one of their fully equipped repair departments, and a serviceable, efficient re-covering is possible, and the tire may be good for a few thousand miles more. But if a tire any make whatsoever-has not been driven at the proper degree of inflation, it is almost certain that the fabric has been strained so that re-covering is useless. In view of the fact that to vulcanize and cure a tire requires 55 minutes of heating at a temperature of 55 degrees Centigrade, it is easy to understand that this process is going to weaken fabric that has already been strained. A real expert knows what to advise in this case. The ordinary garage or repair man goes ahead and re-treads anyhow-and collects for it.

Tire manufacturers, as a class, are honest with their customers. If a tire can be repaired and give so many hundred miles additional riding, it speaks well for the manufacturer's product, and he is glad to be able to do it. When a manufacturer advises against it, however, it is the best plan to take his word and buy a new shoe. During the past two years a motorist from Orange, N. J., has had two Fisk rear casings recovered three times, and has gotten more than 13,000 miles out of each of them. He is one of those who knows how to keep his tires inflated properly.

Will Use Funds For Road Work

The \$3,000 which Sussex County, New Jersey, will receive from the State automobile fund will be placed in the hands of County Road Supervisor Reed J. Washer, of Sparta, who will extend it for repairs of the county macadam roads.

Ball Bearings Invented in 1791

"Ball-bearings, Their Origin, Manufacture, Design and Application," is the title of a pamphlet that is being sent out by the J. S. Bretz Company, New York. It contains an address delivered before the Polytechnische Verein of Germany, by Ernst Sachs, of Fichtel & Sachs, manufacturers of F. & S. bail bearings, Schweinfurt-a-M., Germany.

The credit of being the inventor of the ball bearing is given to a certain iron founder named Vaughn, of Carmathen, England, who took out, in 1791, the first English patent on ball bearings.

The construction foreshadowed in principle our own ball bearings of today, he says. Early in the twentieth year of the last century these bearings were used in mine wagons and trucks, but as the parts were made of soft materials their life was not great.

White Route Book No. 8 is Ready

Route Book Number Eight has recently been issued by the Touring Bureau of the White Company, and it is an interesting addition to the previous route books published by the company. The latest publication contains in its fifty pages the direct touring routes between New York and Richmond, Va., and between Atlanta, Ga., and Staunton, Va. It is accompanied by a two-page map and a number of photographs, the road directions being given.

Mention is also made of the condition of the roads and, on a whole, the book is one that would be of great value to a motorist touring through the South. Copies of any of the eight books which now comprise the White Route library may be obtained at the branches and agencies of the company in all the principal cities of this country and Europe.

Canadian Club Treats Orphans

About 300 orphans from institutions in Hamilton, Ontario, Canada, were the guests of the Hamilton Automobile Club on July 22 on the club's annual orphan day outing. The children were taken to Oaklands Park in thirty automobiles.



TESTING TRACK OF MAXWELL-BRISCOE MOTOR CO. AT NEWCASTLE, IND.

Silver Offering to Mark Fairmount Park Race

The officials of the Ouaker City Motor Club expect to raise a large amount for charity through the running of the Fairmount Park race on October 7. The particular charity has not yet been selected, but the method by which the money will be raised has been worked out by Secretary Harbach. Patronesses will be stationed at the grand stands, parking spaces, entrance gates to the park, bridges and all points of vantage where they will solicit silver from those who witness the race. As the park is easily accessible it is expected that this year's race will attract almost as many persons as last year's event, which was held during Founders' Week.

The entry fees will be reserved by the promoting club to defray its expenses, which will be as follows:

Expenses of promoting and advertising; to provide suitable prizes for the winners; to furnish such oil as may be necessary to lay the dust on the roads; to rope in and guard such corners and turns as may be considered dangerous to spectators; to provide such umpires and guards as may be necessary to keep spectators out of danger; to repair all turns, corners and roads that are injured by said race; to provide all moneys necessary for the proper conduct of the race; to guarantee to contestants a just allotment of the prizes.

Lowell's Novel Method of Selling Tickets

The officials of the Lowell (Mass.) Automobile Club are to use a novel method of selling tickets for their automobile and motorcycle races to be held over the Merrimack Valley course at Lowell during the week of September 6 to 10. In addition to the fund of \$10,000 subscribed by the citizens, 100,-000 general admission tickets have been placed on sale through a corps of young women employed in the cotton factories, shoe shops, department stores and else-The ten girls turning in the largest amount of money will be taken on a trip to Niagara Falls, with all the expense paid by the race management.

At first it was thought that the Merrimack course, which is a little over ten miles in length, would have to be enlarged for the 318-mile race for the Lowell trophy on September 8, but the expense attached to the improvement would be so great that the management has abandoned the idea. Half of the course is over a State highway along the banks of the Merrimack River, the other leg running down a parallel country road, and the Board of Governors believe that the boulevard will afford ample opportunity for three or four machines to bunch or run abreast without danger of accident.

No Sirens If This Ordinance Goes Through

President J. M. Satterfield, of the Automobile Club of Buffalo, and H. A. Meldrum, former president, recently appeared before the ordinance commuttee of the Buffalo Board of Aldermen with the tentative draft of a proposed ordinance regulating vehicles. It is proposed that all vehicles be equipped at

night with lights of not more than 100 candlepower. It also is proposed that all automobiles be equipped with mufflers, that mufflers be used to prevent smoking, and that all unusual noises be prohibited, which provision is aimed at the screeching sirens used by some Buffalo motorists.

PREVENTIVES AND REMEDIES

Some of the brasswork of a car, because of its position and the work which it has to do, is apt to get into rough state and to be difficult to keep clean. This applies particularly to the brass strip edging to the running footboards and the footplates on the door sills. It is sometimes difficult to clean these with a polishing fluid, the latter having a knack of staining the surrounding varnished woodwork or the rubber footboard covering. As a consequence, one often sees these parts unpolishedwhich means discolored. It is far better to abandon the idea of cleaning them with polishes, and to use the finest emery cloth, a piece that has already seen service on other work and has lost some of its "cut" being best suited to the purpose. New, or unused, emery cloth should never be employed.

Very often amateur motorists who do their own repairs have difficulty in slipping cylinders on over piston rings. To obviate this, sheet brass clips may be made which will slide on over the pistons, and each ring can then be kept in place in turn till all are covered with the clip, which may then be screwed up fairly tight by a screw and nut through a flange. The upper edge of the clip should be slightly widened out. The cylinder is then worked slowly on, and the clip slides down in front of it. The method saves a lot of time, and it should be a rare occurrence to break a ring.

It is a wise plan to have the magneto fitted with what should be as nearly as possible a waterproof covering. A magneto of the high tension type with the secondary winding on the armature is very easily put out of commission by a dose of water. In fact, if it becomes very wet it will require some time to thoroughly dry out the insulation. Some makers are now giving especial attention to this point and are providing aluminum covers which are aboslutely watertight. The more common leather or fabric covering is very effective.

A very satisfactory way of stopping the lids of step boxes, in which accumulators, lamp generators or tools are carried, from

rattling, is to fit screw fastenings. For each lid a couple of thumb-screws should be used. These screws pass right through the lid and screw into brass screw sockets, which are let into the sides of the boxes. Straps and hook fastenings, and even locks, are rarely satisfactory for long, and it is astonishing what an annoying rattle a couple of step boxes with loose lids can make. A good rough and ready way to reduce, if not entirely stop, rattling with strap-held lids, is to take a strong piece of rubber tube, such as is used for the water circulation, and put it nnder the strap, or a piece of old air tube three or four inches long and about the same width as the strap may be rolled up and put between the strap and the box. It can be tied to the strap with a piece of string to prevent it slipping out of place or being lost when the strap is undone, and it will last for a long time. After a while, however, the rubber loses its life, and does not offer sufficient resistance or spring to keep the strap quite tight down upon the lid. However, it is a very good makeshift.

Covering the bottom of the battery box with a layer of bicarbonate of soda is an excellent preventive of corrosion.

A satisfactory temporary repair can be made on a leaking water pipe by binding round several layers of string well soaked in thick oil.

Sealing wax dissolved in gasolene makes quite a good varnish for terminals. A little linseed oil in addition will prevent brittleness.

A gasolene tank needs equally as much care, if not more, than the water tank. It should be cleaned, if possible, by allowing some of the liquid to run through the pipe, disconnected from the carburetter.

Perhaps the most common error automabile owners make in the attempt to remedy faults is that of not properly locating the trouble before trying to correct it.

It any electrolyte is lost from evaporation, fill up with spare water, but not acid solution, unless splashing has taken place.

C L U B S

At a recent meeting of the Automobile Club of Delaware County, Pa., President Weeks announced that the membership of the club was now 357, and that the organization is the second largest of its kind in the State. In discussing the proposed club-house, President Weeks said he thought the cost should not exceed \$10,000 or \$12,000, and that no attempt ought to be made to provide golf links or other country club features. He announced the appointment of the following members of a committee to decide on plans, select a site and report at the next meeting of the club. W. C. Sproul, chairman, Chester; John P. Crozier, Upland; James Boyd, Haverford; A. M. Tomlinson, Swarth-more; Edgar Scott, Landsdown; C. H. Stewart, St. Davids; John R. Valentine, Bryn Mawr; Franklin M. Potts, Media; George C. Hetzel, Ridley Park, and C. F. Jenkins, Philadelphia.

President J. H. Weeks, of the Automobile Club of Delaware County, Pa., has prepared a map showing automobilists how they can avoid the Old York road, near Philadelphia, where the police have been particularly active of late.

The Board of Governors of the Automobile Club of Washington, D. C., held a special meeting last week, when a number of important matters were presented and discussed. The club promised hearty support to the floral parade, under the auspices of the Chamber of Commerce, September 30, and it will co-operate with that organization in making it one of the greatest events in automobile circles ever held in that city. The following were elected to membership in the automobile club: R. C. Wilson, Lewis Holmes, W. Hamilton Smith and E. R. Marden.

The Touring Club of France, which is always doing something to improve touring conditions in that country has just voted a sum of \$12,000 toward the construction of a road from St. Christophe to La Bernarde, a little village in the Department of Isere, which so far can only be approached via a mule track. La Bernarde is a center from which a large number of interesting excursions can be made, includ-

ing La Meije, the Ecrins and many other mountain tops and glaciers, so that when the new road, which is estimated to cost \$60,000, is completed, a new district for tourists in France will be opened up.

The Automobile Club of France has just decided to offer an annual prize of \$200, for a period of six years, to the farmer who makes the greatest use of agricultural motors in connection with his farm.

The Good Roads Committee of the New Jersey Automobile and Motor Club will make application to the Road Committee of the Road Horse Association for a conference some time in the near future, with the object in view of bringing before the proper authorities the deplorable condition of the Plank Road between Newark and Jersey City, and having it remedied. Automobilists say that it is the worst stretch of road in New Jersey and that it is positively dangerous to traverse it at night.

Under the direction of the Automobile Club of Syracuse a pamphlet is being prepared, giving road directions from Syracuse to Richfield Springs, a distance of 70 miles.

The Contest Committee of the New Jersey Automobile and Motor Club, of which H. A. Bonnell is chairman, has been given full power to arrange whatever club runs are thought advisable and is considering the idea of holding a club run to Port Au Peck and a joint run with the Automobile Club of Hudson County.

The Springfield (Mo.) Automobile Club has been re-organized, and the following officers elected: President, W. H. Horine; vice-president, Holland Keet: secretary, J. E. Atkinson; treasurer, Robert L. Pate.

Members of the Quaker City Motor Club of Philadelphia, and C. W. Hicks, representing Mayor Reyburn, went over the course in Fairmount Park, where the stock chassis race is to be held on Oct. 7, for the purpose of seeing what is required in the way of repairs. The Board of Governors of the club have been appealed to by representatives of the White Haven Sanitarium for Consumptives for a share in the distribution of the profits of the race.

AUTOMOBILE SPORTS

A three-days' endurance contest to be held early in September, is being planned by the Council Bluffs (Ia.) Automobile Club. In all probability the motorists of Des Moines, Sioux City, and a number of other places will be asked to participate in the event. The present plans call for a run from Council Bluffs to Des Moines on September 4, to Sioux City on September 5, and return to Council Bluffs, on Labor Day, September 6.

A reliability trial from Haparanda to Stockholm, was recently conducted by the Swedish Automobile Club. Only two cars, Herr Salomonsen's 75 hp. Italia and Herr Eklund's Cadillac, succeeded in covering the whole 750 miles without loss of marks. The former won the Swedish Club's trophy, and the latter two prizes, including a gold medal. A silver medal was won by Herr Nystrom, whose Durkopp only lost two marks. Awards were also made to Herr Skanberg (Horch), Herr P. Lindstrom (Frayer-Miller) and Herr Raaf (Piccolo).

The Belgian Automobile Club will conduct a small car race on September 12. The conditions will be practically the same as for the last Coupe des Voiturettes race on the Boulogne circuit, while the course will be from Ostend through Middelkerke to Nieuport, then back through Maeskerke, a distance of 33 kilometers, which will have to be covered a dozen times.

Western New York motorists, particularly those of Buffalo, are very enthusiastic over a two-days' automobile carnival which is scheduled to be held on the Fort Erie racetrack in Buffalo on Friday and Saturday, August 6 and 7. Prominent automobiles and drivers from all over the country will be asked to compete in the twenty events which will be run during the two days. Dai Lewis, of the Buffalo Automobile Club, will manage the affair, which will be the first event of its kind held in Buffalo for three years.

A 1,500-mile tour is being planned by the officials of the Winnipeg (Manitoba) Automobile Club. The tour, which is scheduled to start from Winnipeg on August

7. will take the participants through North Dakota and Minnesota before returning to their homes in Canada.

Beaumont. Tex., automobilists are taking great interest in the beach automobile races, which will be held at Galveston on Thursday. Aug. 5. The races are to be the feature of the Cotton carnival celebration to be held in Galveston, beginning August 2. The executive committee of the carnival has sent invitations to every automobile owner in the State to be present and take part in the races, for which handsome silver cups and trophies have been donated.

About fourteen cars have been promised for entry in a 1,500-mile tour, to be known as the Munsey Reliability Contest, from Washington to Boston and return, September 21 to 29. Trophies will be awarded for three classes—touring cars, miniature tonneaus and touring runabouts. While the route has not yet been mapped out, it will be approximately as follows: Washington to Baltimore, Philadelphia, Milford via Delaware Water Gap, Albany and Springfield to Boston. Returning the route will lie from Boston through New York. Philadelphia and Baltimore to Washington. A two-day stop will probably be made at Boston.

Ocean City (N. J.) motorists are talking of holding an automobile parade some time in August.

An international race for light cars for the Normandy cup is to be held near Caen, France, on August 8. The event will take place over a fifty-six kilometer course, which will have to be covered six times, giving a total distance of about 210 miles,

Some speed trials at a distance of one kilometer were recently held near Moscow, Russia, when the best time, 34¼ seconds, was made by M. Prockhorow on a Fiat.

The Automobile Club of Vosgien is organizing a hill-climbing competition on the Saint-Maurice-Bussang mountain for August 22 next.

HIGHWAYS

At a meeting held recently in Ventura County, Cal., steps were taken to secure the paving by the petrolithic process of about thirty-three miles or roadway in the Santa Clara Valley, including the main road, the old Telegraph road, from Ventura to Santa Paula, sixteen miles long; six miles from the eastern town limits of Ventura to the Montalvo bridge across the Santa Clara River; five miles reaching from this highway along what is called the "Lower Road to Saticoy," and six miles running westerly from Santa Paula to the Limoniera Rancho. A committee of representative men was appointed and instructed to ascertain the taxable value of the property lying between Ventura and Santa Paula, and between the Santa Clara River and the top of Sulphur Mountainin effect the agricultural heart of Ventura County-with a view to having the section set apart by the supervisors as a special road district to be bonded to have the roads named. The city of Ventura some time ago began an extensive system of street improvement, and several miles of streets already have been laid with petrolithic pavement. Engineers and road builders who have inspected these streets say that no finer ones are to be found in any city of California.

Senator Jones, of Washington, has notified the people of Pacific County that plans for a public highway through the Fort Columbia military reservation must be changed if they hope to gain consent of the government for the construction of the road. The road as now surveyed runs through the parade grounds at the reservation, which will not be permitted, and some change will have to be made on this account. The road is much desired by the residents of Pacific County, and they will undoubtedly make the change desired by the government.

Motorists who frequent the Jersey coast resorts will be pleased to learn that Long Branch is to have another new drive to the seashore. It will start at Cedar and Norwood avenues at the McCall estate and run to the Eatontown Boulevard, through the village of West Long Branch, a distance of three miles. The road will be built of gravel, the expense being met by

the borough of West Long Branch, the township of Eatontown and the Monmouth County Board of Chosen Freeholders. Its cost will be something over \$12,000. The plans and specifications of the new road were accepted by the Monmouth County Board of Chosen Freeholders last week. The new road will make a nearer cut from Freehold to the seashore.

Judge W. F. Eve. of Augusta, Richmond County's Commissioner of Roads and Revenues, has secured prizes aggregating \$2,000, of which \$1,000 is offered toward the State Good Roads Automobile Contest to be devoted to prize awards for the endurance contest between Augusta and Atlanta, and \$1,000 toward the movement for a highway between Atlanta and Washington, D. C., by way of Columbia, Raleigh and Richmond.

Charles J. Harrison, road expert of the United States Agricultural Department, who has been connected with the Louisiana State Board of Engineers in its work of making surveys of the roads of the State, has been assigned by the department to accompany Congressman A. W. Oldfield, of the Second Arkansas District, in making a tour of his district in the interest of good roads. Twelve counties will be gone over in the tour which will commence on August I.

The officials of La Flore County, Oklahoma, have decided to appropriate money from the treasury for the purpose of improving the highways, instead of using it for the erection of a new county court house. Both improvements have been sought by the inhabitants of the county, but the faction in favor of good roads won out.

In France's recent small car race, the Coupe des Voiturettes contest, calcium chloride instead of oil was used as a dust layer with such success that it will probably displace the other preparations for similar purposes in that country in the future.

Ten miles of new road is being constructed between Ithaca and Dryden, N. Y., and ten miles more from Ithaca to Owego by way of Slaterville.

AERONAUTICS

The trials of French dirigible balloons have given such satisfactory results that several foreign governments are securing copies of these vessels. The Spanish government has ordered a French built airship of 141,280 cubic feet capacity that is being laid down at Sartrouville. In January last the Belgium government commissioned a 249,580 cubic feet gas capacity frameless French dirigible, to which the name of Flandre will be given and which is being fitted with a pair of engines, one fore and the other aft. Russia, besides the Bayard-Clement, has just taken delivery of a Lebaudy airship built at Moisson. It can carry a crew of nine men. The Austrian military authorities intend to procure a vessel of the French semi-rigid type in addition to the Parseval type of airship already ordered in Germany. This will be approximately of the same dimensions and engine power as the Parseval, and thus valuable comparative trials can be made. The Zeppelin Airship Construction Company has just refused two foreign orders for Zeppelin vessels, received from the Turkish government and a French aerial navigation company, on the plea that their works are being taxed to their utmost capacity with German government orders.

From Washington comes the report that Samuel and Nat Luttrell, of that city, are constructing a novel type of aeroplane, which they expect to try out in a short time.

The budget commission of the Austrian House of Peers has resolved to demand from the government a credit of \$110,000 in 1900 and the same sum in 1910, to be expended on the purchase, construction and working of aerial vessels, the promotion of public competitions and the creation of experimental stations.

The German "aerial navy" will very shortly consist of six dirigible balloons. Of these the Zeppelin I., which is to be taken from Friedrichshafen to Metz as soon as the atmospheric conditions are most favorable, has a capacity of 12,000 cubic meters and motors capable of developing 200 hp. Besides it there are the Parseval I. which

is also to be removed to Metz shortly and has a capacity of 3,500 cubic meters and motors capable of developing 100 hp.; the two Gross airships, each with a capacity of 4,500 cubic meters and capable of developing 150 hp.; Zeppelin II., which will undoubtedly be accepted by the military authorities if it makes a successful trip to Berlin at the end of August, and the Parseval II., with a capacity of 6,700 cubic meters.

General Brun, the new French minister of war, says he regards the aeroplane and the submarine as the war instruments of the future. "The aeroplane," declares the war minister, "is less vulnerable and more rapid and cheaper than the dirigible, and as soon as it is perfect the French army will be provided with a swarm of these warships."

Count Henri de La Vaulx, one of Europe's most famous balloonists, while very enthusiastic over Bleriot's achievement in crossing the English Channel in an aeroplane, insists that the spherical balloon must not be forgotten. He considers its utlity incontestable, as it alone gives poetic sensation and blissful tranquillity and can attain heights capable of solving many problems interesting to humanity, and he expects that balloons ultimately will be equipped with a motor.

It is rumored that Roy Knabenshue and Lincoln Beachy, prominent American aeronauts who heretofore have been satisfied with sensational flights through the clouds in dirigible balloons, have been seized with the aeroplane fever and have begun work on a biplane which they say will be finished in thirty days. They will use an engine taken from a dirigible balloon.

The Aero Club of New England has entered into negotiations for the purchase of an aeroplane, to be delivered in 1910, according to an announcement made last week by the secretary of the club. Alfred R. Shirgley. The club has not decided whether a Wright or Curtiss model will be purchased.

Accidents and the Rules of the Road

The widespread prevalence of automobile accidents has led many people to ask whether motorists really understand the rules of the road and how to act in usual and unusual circumstances to maintain the safety so much to be desired. It has been pointed out that in many cases these accidents have been due either to ignorance of the ordinary rules of the road or to the supreme carelessness of automobile drivers in ignoring the simple regulations that conduce to safety.

A word of warning has been sounded by President Lewis R. Speare, of the American Automobile Association, and his endeavors to control the present wave of recklessness have been seconded by the other officers and chairmen of the various A. A. A. boards.

Many of the recent deplorable accidents might have been avoided by the observance of the simple road rules and sane driving," said President Speare. "There is also too much recklessness in crossing railroad and surface car lines, as well as passing electric cars in city streets, when passengers are alighting. Again, many motorists in descending hills, even if not very long or steep ones, persist in keeping practically the full power of their motor on. If more motorists would throttle down the engine, or totally disengage it while descending a hill, the number of accidents from this source would be materially decreased. When the motorists suddenly finds himself in a tight place while descending a hill under full power or even partially so, and he loses control of his car it is the most natural thing in the world to attribute the difficulty to the failure of the steering gear to work properly, whereas, there would probably have been no trouble at all were the the machine allowed to coast down gradually under its own momentum."

Some of the ordinary rules of the road which every motorist ought to know by heart and invariably observe are:

- 1. Keep to the right when overtaken by a passing automobile or other veivle going in the same direction.
- 2. Keep to the left when about to pass another vehicle in the same direction, in other words, the automobilist should pass another vehicle going in the same direction on the left-hand side.
- 3. Pass to the right when meeting a vehicle moving in the opposite direction.

Among the clubs that have recently been aroused to renewed activity toward preventing this widespread tendency to recklessness are the automobile clubs of Cleveland, Rochester and Syracuse. A vigilance committee has just been appointed by the Rochester Club, whose object is to deal severely with members and chauffeurs who persistently exhibit recklessness and carelessness in driving, and a vigorous campaign is also to be waged against autoists carrying fictitious numbers.

President W. F. Bonnell, of the Cleveland Automobile Club, has issued a general letter to all of the members calling their attention to the fact that the city ordinances are being violated every day. So flagrant has this become that the Chief of Police in Cleveland has ordered that bulletins shall be issued every forty-eight hours giving the numbers of cars which have been recklessly operated. President Bonnell requests the members to co-operate with the officials toward suppressing this evil.

"Co-operation in this," he says, "will be helpful to the automobile manufacturers, the individual owner of a car and to citizens in general."

Kansas Farmers Take on City Ways

Kansas farmers are now tossing their old ways into the discard and taking on city methods. Several rural communities over the State are organizing country commercial clubs to further their own welfare, industrial and social. These organizations are unlike the old Farmers' Alliance in that they have no grievances to air, are not working the political end, and are not founded upon "the wail of the downtrodden," says Motor and Horse Vehicle.

A country commercial club operates about the same as a commercial club in a big city. It keeps close tab on business matters that affect its locality, and when it finds that it can improve business conditions it does so. The farmers chip in enough money to keep the organization going.

Extension of the rural delivery system and rural telephones, encouragement of farm improvement, and the building of good roads are some of the things the country commercial club is tackling.

The first thing the club does is to encourage people to give their farms appropriate names. This request is meeting with ready response, and it will be only a short time until every farm in the communities which have commercial ciubs will be appropriately named.

Kansas perhaps has the best natural roads of any State in the Union. There is practically a highway on every section line. In three-fourths of the State the dirt roads, ten months of the year, are as level and hard as a floor. Only in eastern Kansas are rock roads needed. The only thing necessary to keep the natural dirt roads in good condition is to drag them after each rain. The various country commercial clubs in the State have taken steps to have the dragging done systematically.

The club at Marysville has evolved a

plan which gets the roads dragged regularly. It has hung up cash prizes for the best ten-mile stretch of country road leading into the town. The sum of \$750 has been raised among the farmers for that purpose. After the first award is made another batch of prizes will be awarded. In fact, the club will keep on offering prizes until the roads of the entire country are put in excellent condition. The proposition not only requires the roads to be put in first class shape but to keep that way all season.

The Marysville idea is expected to spread. Country commercial clubs which haven't enough ready cash on hand to offer prizes for road work will hold country entertainments, ice cream socials, and the like and secure funds. Automobile owners—and there are many of them among the farming classes now—are solicited for extra contributions for the road improvement fund. Usually they contribute liberally.

One farmer in western Kansas bought a \$3,000 automobile recently. After he got it home he found a stretch of road a mile long in his neighborhood that was too sandy for his machine. He wanted to use that road frequently. So he simply took his farm hands and teams and built a mile of macadam road through that sand. The road, perhaps, cost him \$1,000. But that amount was nothing compared to the convenience the farmer got out of his new road and the satisfaction he had in knowing that his automobile wouldn't get stuck any more.

It is not an uncommon sight most any Saturday in any county seat town in Kansas to see \$100,000 worth of automobiles belong to farmers bunched up around the public square or on the main business street.

Experimentation With Springs

The investigation and practice of the members of the Association of Licensed Automobile Manufacturers, as to the springs which carry their car bodies and frames, make a very interesting tale. Many grades of metal, domestic and foreign, have been used, including chrome nickel steel and steel containing chromium combined with tungsten, vanadium, etc. With special alloy steel a very superior article can be produced, provided the requirements of heat treatment are followed. By some it is advanced that silico-manganese steels will endure longer than high carbon steels. Springs of certain specified analysis are to-day being made, which will successfully withstand any test to which they would be subjected.

Typical practice is to have the proper ingredients in the initial product, insisting upon a strict maintenance of this standard when the product is delivered, following with a standarized method of treatment all the way through, including the requirement that the spring will take only so much set under the first test, and then stay there. It is necessary to have the furnaces, in which the steel is treated, under pyrometer control, with very slight variation in temperature allowed; and with a so-called "soft" heat, not harsh or severe, as to which the kind of fuel employed is important. The most commonly used heat treatments are annealing, hardening, tempering, hardening and annealing, double annealing and double hardening and annealing.

It is contended by some producers that a spring with the least arch; that is, the nearest flat, is the safest spring, if enough room for the proper amount of deflection is reserved. This is on the theory that the greater the arch the greater is the fiber strain in a spring.

In connection with front springs, one authority states they should, to preserve proper resiliency, not be thicker than their width; should be fairly stiff, with a maximum deflection of not over one-quarter of an inch per hundred pounds; not off-centered, and have the front eye set higher than the rear eye, not less than one-half inch, this latter preventing the car from ducking. That in rear springs, where the problem is relatively easy, the length and width should be as great as possible, if made scientifically as to the spacing of the leaves, the length of the taper and the grading of the steel. There can be made a spring that will take certain dimensions under a given load, and ten thousand other springs which will take the same dimensions under the same load, but it is essential that they have a large number of leaves of special grade steel, specially tempered, with an absolutely correct grading, so that there will be spring play from the center of the eye to the center of the spring.

It has long been seen that the carriage spring steel of the last quarter of a) century will not do for automobile springs. And successful experiments of the last ten years have given us various satisfactory designs for automobile springs; securing reliability and ease of riding with lower suspension of the body.

The weight, the speed, the traction feature and the variation of passenger load are elements that never, until the case of the automobile, existed to the same extent in any one vehicle.

Winner's Car Had Diamond Tires

It is interesting to note that the prizewinning Winton car, which covered 17,003 miles without the expenditure of a cent for upkeep, was fitted with Dia mond tires.

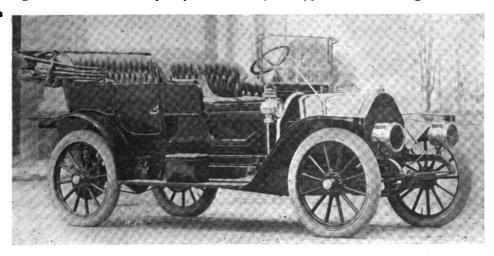
Four-Cylinder Reo at \$1,250.

The long expected four-cylinder Reo is to become a certainty in 1910. Announcement was made last week that the Reo Motor Car Company would put out a car of this type to sell for \$1,250, and so confident is the R. M. O. Conipany of its instantaneous popularity that it has placed an order for 10,000 Reo cars for next year. Rated at 30-35 hp., having four vertical cylinders 4x4½ inches, the car is equipped with a magneto, with battery for starting. Transmission is of the selective type, giving three speeds forward and a reverse, while the tires are 34x3½ inches. The body seats five persons comfortably.

While combining the very best foreign and domestic practice, the new car will be strictly American in general design and construction, even going so far as to have the steering wheel on the left-hand side, a practice that is coming into general use. The motor will be a four-cylinder vertical with the cylinders cast in pairs. The bore is 4-inches with a stroke 4½ inches, while the horsepower rating is 30-35. The long stroke is a feature that has been coming to the front for the past year. The crank case is cast in one piece, giving great rigidity and avoiding all leakage of oil through packed joints of the two-piece type. Connecting rod adjustments can be made easily by simply removing the two hand-hole plates on the side of the crank-case. These features are possessed by no other motor of this type at the present time avoiding any dismantling of the motor in order to adjust the main and connecting rod bearings.

The crank-shaft is of special high grade manganese steel, having a tensile strength of 110,000 pounds to the square inch. The crank pins are 1½ inches in diameter, 2¼ inches long. The three main bearings have a combined length of 10½ inches, with a diameter of 1¼ inches. The crank-shaft is offset from the center line of cylinders thus avoiding the excessive piston thrust on cylinders. In order to reduce wear, the cam-shaft is likewise offset from the center line of the valves lifter guides. The cam gears are all spiral cut so as to minimize noise and friction.

Oiling is by the pump or circulative splash type thus furnishing no outside



NEW 4-CYLINDER, 30-35 HP. REO

pipes or connections to get loose or leak. This feature removes a very important element from the hands of the inex-A single length plunger perienced. pump is driven from the cam-shaft through an eccentric. It delivers oi! from the oil reservoir to the three main bearings of the motor, also to the face of the cam-gears. This oil then collects in partition reservoirs in the bottom of crank-case, and is maintained at a constant level. The connecting rods dipping into this oil cause a fine spray which lubricates the cylinders and piston. The amount reaching the cylinders being governed by splash piston.

Ignition is by magneto with battery auxiliary to aid in starting. The magneto is attached to its bracket by a single strap, allowing easy removal. The contact points are very accessible while the wiring is short and fully protected. These will all form part of the regular

equipment. The large steering wheel with comfortable rake and foot controls are located on the left side. The transmission is of the latest swinging selective type, absolutely locking when in neutral position. The large brake drums prevent overheating and are in keeping with all the other advanced features which mark this new model throughout.

The wheel base is 108 inches, this being neither too long for city use and of ample length for easy riding on country roads.

The tread is 55 inches. The clutch and connections are all thoroughly upto-date. The carburetter is the automatic float feed type with an extremely wide range of speed.

The two cylinder \$1,000 Reo touring car and single cylinder runabout which have proved so popular during the past five seasons will continue to be produced during 1910.

A Ride in a White Steamer

Great things are expected from the new White gasolene car, which a representative of AUTOMOBILE TOPICS examined in Cleveland recently. The makers of the standard steam car of the world have been quietly working on this gasolene model for a long time, and have now reached the point where they deem it ready to place in the hands of the user. It contains a number of features which have been evolved by Rollin H White, the designer of the White steamer, which will commend themselves as soon as the car is tried.

An account of a ride taken by a party of White officials is given by George V. Bennett, the White company's Eastern sales manager, who recently went to Cleveland for that purpose.

"Seven years in Wisconsin in the earliest days of motoring, with the combination of embryo automobiles and bad roads, trained me to expect about anything," he said. "But a few weeks ago upon a trip to our factory at Cleveland, Rollin H. White took Walter C. White, A. R. Warner, secretary of the company, and myself over seventy miles of the worst road I have ever traveled.

"We are all fairly well blessed with avoirdupois, the total weight being just over 700 pounds, and the vehicle was the new gas car. It reminded me of my early experiences excepting only that we were in the most perfect piece of gas car mechanism I had ever tried. Mud was everywhere and it recalled some of the memorable Glidden Tours. For miles we were hitting the crown of what is called by courtesy a road and leaving the imprint of our rear axle casing in the soft mud, but the way that little car pulled through it on the direct speed was a revelation.

Women Transcontinentalists Nearing Their Goal

After traveling over more than 3,000 miles of roads, most of which were in frightful condition for automobiling, Mrs. John R. Ramsey, of Hackensack, N. J., is nearing the completion of her transcontinental tour from New York to San Francisco in her Maxwell car. With her arrival in Columbus, Neb., all records for transcontinental touring in automobiles by women were broken. Mrs. Ramsey was the first woman to drive a car across the continent from New York as far as Columbus, and with her companions on the long trip, Mrs. N. R. Powell, Mrs. M. Atwood and Miss H. Jahns, she was very enthusiastic over the performance.

Most of Mrs. Ramsey's travels have been negotiated under the most adverse weather conditions, which resulted in the roads being in a bad condition.

When the four ladies left New York on June 9 it was raining hard for the East, but what would have been considered only a shower in the West. To Chicago, and, in fact, into Clinton, Iowa, the roads were good, and a trifle more than 1.000 miles were made in the first seven days. After leaving Clinton, however, rain fell every day for two whole weeks, rains in that section of the country meaning terrific storms in the The result of these rains and cloudbursts was washed away bridges. rivers and streams over their banks and onto the narrow roads, and mud and gumbo over the axles of the car almost continually until Columbus, Neb., was reached.

With the bridges washed away long detours were necessary, but the greatest difficulty encountered was from the mud and streams on the roads. Mrs. Ramsey drove her car through the water all right, and at times the treacherous bottom gave away, causing the car to sink so that the water rushed in over the

footboards of the car. As long as she was able to secure traction the engine pulled the car along, but on several occasions no bottom could be found, and the use of horses became necessary.

After getting to Columbus the Union Pacile trail across country was followed, and while this is narrow, grass grown, and rough in parts, it was like riding over macadam roads after what had been traveled, and the big Maxwell fairly flew along in spite of the terrible strain it had been through, and after having covered, too, about 3,000 miles. The run of almost 500 miles from Columbus to Cheyenne was made in fine time, in spite of the steady climb to almost one mile above the sea, the altitude of that city.

At Cheyenne a brief rest was taken, after which the Maxwell was again headed due west for a steady climb through Laramie and Rawlins Granger, Wyo. From here the trip will be through Salt Lake City, Reno, Sacramento to San Francisco, across the high ranges of the Rocky Mountains, up and down steep grades, which, by the way, have no terrors for Mrs. Ramsey or any of her party, for the car has already been through work that would pull it to pieces, if hard work could possibly do it. She has had not a bit of engine or mechanical trouble of any kind and surprisingly few tire troubles. Mrs. Ramsev is confident that the bold grades of the rough Rockies will be easily negotiated, and that in a short while she will have reached San Francisco, claiming the honor of being the first lady to drive a car from New York to San Francisco, or Hell Gate to the Golden Gate, for herself, and for her car the glory that goes with having crossed the American continent under conditions more trying than any ever encountered by any other car.



WEEKLY JOURNAL DEVOTED TO THE INTERESTS OF AMERICAN AUTOMOBILISTS.

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Louis Bleriot. First Channel Aeronaut

The daring seaman who first had the hardihood to leave Mother Earth behind and venture upon the bosom of the calm but fickle and treacherous sea must have experienced some of the sensations felt by Louis Bleriot, whose name will go thundering down the ages as the first man to cross the English Channel in an aeroplane.

The character of the two deeds does not differ materially. If the ancient seaman-whether Phœnician or scion of a still older race-was oppressed by a dread of the unknown that almost overwhelmed him, he at least was at home in the water and possessed a knowledge of and control over his craft that quite transcended anything known to his Gallic successor. Bleriot, on the other hand, was not troubled with the superstitious fears that oppressed the ancients. But lie was in a strange element, astride a craft new and almost untried; one as yet singularly subject to mishaps and controlled only by the exercise of great skill and good fortune. Therefore, the two adventurers were practically on a plane.

The sensations of M. Bleriot, when he happened to glance behind him and saw that within the range of his vision there was only water and sky, are eloquently described by the daring aviator. "I am amazed," he said. "I am alone; I can see nothing at all. For ten minutes I am lost; it is a strange position to be in-alone, guided without a compass in the air, over the middle of the Channel. I touch nothing, my hands and feet rest lightly on the levers."

The simple and graphic description brings the situation before us distinctly. Without guide, or knowledge of the whereabouts of the land he sought, he was more than a Robinson Crusoe. Defoe's hero could at least plant his feet firmly on the ground and gaze upon accustomed sights. Everything within Bleriot's purview was strange, abnormal, almost terrifying. What his feelings would have been had his aerial craft taken a sudden shift and headed straight across the Atlantic without his immediate knowledge can be imagined.

Aviators are making history these days. Louis Bleriot will take his place with the Wrights, Zeppelin, and other conquerors of the air. He accomplished a notable first.

Ideal Highways Still Far Off

The ideal highway is yet to be discovered, or invented, and when this happens it will be many years before any really appreciable progress is made in the work of replacing the roads of to-day.

It is a certainty that for a long time to come we shall be compelled to put up with the dirt and macadam highways which now bisect the country from the Atlantic to the Pacific coast and from the Canadian to the Mexican border. How inadequate they are to our present needs even, much less those of the next decade or two, we all know. In wet weather muddy and slippery, in dry weather dust heaps, which are blown hither and yon by even the gentle summer breezes, we put up with them simply because until within a very few years highway building has been a science which we deemed unworthy of notice.

The two great problems connected with the roads are their inadaptability to automobile traffic and their tendency to migrate in dust clouds under the stress of automobile traffic. The first is receiving serious consideration at the hands of municipal, county and State bodies responsible for their maintenance. They already appreciate the absolute necessity of finding some means of preparing roads to resist the destructive effects of motor vehicle travel. So far, it must be admitted, they have not met with any considerable measure of success, and the probability of their doing so does not appear to be very great. There is only one thing that is quite beyond dispute: The system of road building invented by Macadam and added to by Telford is not adapted to automobile traffic, whatever it may have been for horse-drawn vehicles.

If we turn to the dust evil, and the methods employed to lessen it, we find a more encouraging outlook. Much has been done in this direction and a great deal more can be done. The treatment of both macadam and dirt roads by the various preparations compounded of tar or oil, or both, is going on with ever increasing frequency and success. It has been demonstrated beyond the possibility of a doubt that dust can be allayed in this way at a comparatively small expenditure of time and money; and while it is not yet clear how frequently the treatment must be repeated, or what effect upon the roads the treatment will have eventually, we do know that such treatment provides a remedy from the dust nuisance as it exists to-day. That much is good.

DEPARTMENT TRADE

Walter Company Receiver Makes Report

An inventory and report was recently filed in the Court of Chancery by Harry J. Wright, receiver of the Walter Automobile Company. The inventory shows the company's total assets to be \$159,-469.98. The items are as follows: Real estate, made up of the plant on Whitehead road, east of Trenton, N. J., \$65,000; machinery and equipment, \$85.174.91; tools, \$2.103.90; materials

on hand, \$6,486.77; accounts receivable, \$704.40.

The liabilities listed aggregate \$229,-396.06, composed of accounts payable. \$5.396.06; mortgage and \$224,000. The mortgage was made to the Trenton Trust and Safe Deposit Company, as trustee, to secure an issue of \$200,000 worth of bonds. The interest on the bonds amounts to \$24,000.

Testing Track and Factory Addition for Peerless

Automobile factories grow so rapidly nowadays that it is not easy to keep track of them. Last week AUTOMOBILE Topics published a view of the Peerless factory which, although taken recently, failed to show an addition that is now being made to it. The Peerless company recently acquired a fourteen-acre plot just across the railroad tracks which will be used for factory buildings, and a one-half mile testing track.

The steadily increasing demand for Peerless cars has rendered additional facilities necessary, while the testing track is an adjunct that is becoming more and more important every day.

A Picture That Tells Its Own Tale

Photographs bring home more forci- of things. Last week AUTOMOBILE bly than anything else the real meaning

Topics told about the convention held



FACTORY EMPLOYEES OF MAXWELL-BRISCOE MOTOR CO.

at the Newcastle (Ind.) plant of the Maxwell-Briscoe Motor Company, and touched upon the extent of the plant and the number of employees. The accompanying picture retells the tale, but in thundrous tones which cannot but impress the beholder profoundly.

The view shows employees of the Newcastle factory assembled in front of

the plant. The automobile in the center of the group is occupied by Messrs. Benjamin Brisco, J. D. Maxwell, F. D. Dorman and Colonel K. C. Pardee. Around them are grouped the district supervisors and branch house managers of the Maxwell-Briscoe Motor Company, and the employees of the Newcastle factory.

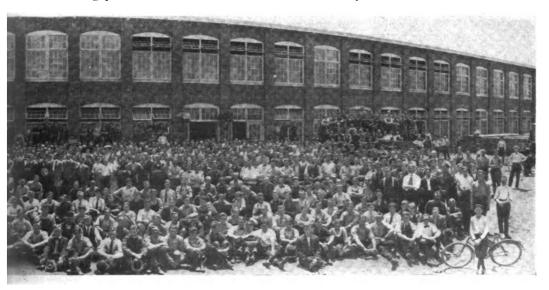
Diamond Employees Make Merry

Silver Lake Park, the popular northern Ohio resort near Cuyahoga Falls, O., was the scene of the annual outing of the employees of the Diamond Rubber Company, of Akron, Saturday, July 24. The outing was one of the largest of the season at Silver Lake. More than 10,000 people were on the picnic grounds during the day and evening.

The Diamond Rubber Company, distributed over 6,000 tickets to its employees and members of their families entitling them to free transportation, admission to the grounds and the enjoyment of many of the park attractions, including entrance to the mammoth dancing pavilion.

A programme of lively land and aquatic sports, together with a baseball game and a wrestling match between two crack athletes from the factory were features of the picnic. The baseball game was played between the tire department and a picked nine from the remainder of the factory. The winners of the athletic events were awarded prizes.

John G. Dale, former secretary of the Fiat Automobile Company, of New York, has secured the exclusive agency for Simplex cars in New York City. He has opened headquarters at 1860-62 Broadway.



THE CONVENTION AT NEWCASTLE, IND.

New Palmer and Singer Factory Nearly Ready

The new factory of the Palmer & Singer Manufacturing Company, in Long Island City, at Webster Avenue and Second and Third Avenues, is fast nearing completion. This factory, the first of several in the motor car trade to be built within the boundaries of Greater New York, is of steel and brick with concrete floors; not only "fireproof," but absolutely unburnable, and is of the most modern type.

The edifice is three stories in height and will be able to accommodate 1,000 workmen, although a considerably smaller number will be transferred to this building immediately upon its opening. The arrangement of its various departments comprise every facility which system can devise for the elimination of wasted time and the production of the very maximum of effectiveness in every unit of its manufacturing force, and completeness, thoroughness, the most modern construction, the most modern equipment, every labor-saving device known to mechanics, the installation of every mechanical contrivance which can promote an added item of excellence to the finished product—this is the keynote of the factory.

As soon as the proper machinery is installed work will be begun in the new building on the fall additions to the Palmer-Singer 1910 line. These comprise two types to be known as the Six-Forty and Four-Fifty. The Six-Forty will be as its name indicates a six-cylinder, 40 hp. car which will be catalogued as a fast runabout, as a light touring car with a baby tonneau, and as a sevenpassenger touring car: The production of the Six-Forty was practically forced upon the Palmer & Singer Manufacturing Company by the demand for their big Six-Sixty, six-cylinder, 60 hp. touring car, which has been so prominent a success of their 1909 line. These cars were sold much faster than the Palmer Singer Manufacturing Company could turn them out, and so popular have Sixes been that many owners who desired six-cylinder cars of horsepower considerably less than Sixty have contracted in advance for the building of a six-cylinder 40 hp. car of the very highest type and grade which can be turned out.

The four-cylinder, 50 hp. model will be made in the same type of body as the Six-Forty.

Takes Over Rambler Retail Business

The successful establishment of a New York branch of Thomas B. Jeffery & Company last year, to control the sale of Rambler cars in New York and contiguous territory, has been followed by the announcement of the taking over of the retail business of the Rambler, formerly handled by Homan & Schulz Company, New York City, by this branch, located at 38-40 West 62d Street. This location has been the distributing point for the Rambler wholesale business throughout the East.

The Rambler now has branches lo-

cated in Boston, New York, Cleveland, Chicago, Milwaukee and San Francisco.

Maxwell's New Advertising Manager

Berry Rockwell, late of the Railway Steel Spring Company, and well known through his work as field secretary of the Sacramento Valley and Eastern Railway Company, and as secretary of the Hotel Knickerbocker, New York, has accepted the position of advertising manager of the Maxwell-Briscoe Motor Company.

Big Implement House Takes on Ramblers

Implement dealers throughout the country who have been closely watching the progress of the automobile with their own patrons consider the announcement of the entrance of the Kingman St. Louis Implement Company into the automobile field to be most significant.

Arrangements have just been completed whereby this concern, one of the largest and oldest in the central South, will handle the Rambler automobile exclusively in southern Illinois, eastern Missouri and Arkansas.

This alliance of the big St. Louis concern, doing a business of one million dollars a year, with what is perhaps the most substantial automobile concern in the country, that of Thomas B. Jeffery & Company, will quite likely result in a series of similar alliances on the

part of the large implement jobbing houses.

L. N. Burns, manager of the Kingman St. Louis Implement Company, will be in charge of this territory and he will be assisted by J. H. Ramsden.

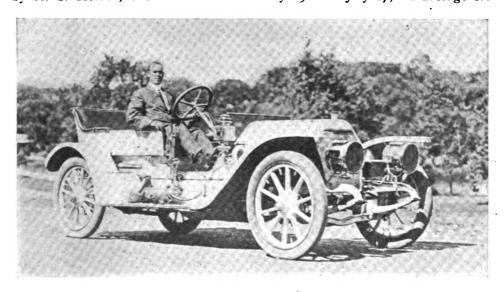
Before selecting the Rambler the St. Louis concern considered the selling merits of various well-known automobiles. They chose the Rambler in order that they might be able to handle a car consistent in its quality with the quality of the goods they had previously handled and made by a manufacturer whose stability and high reputation is widely recognized.

The Rambler was also favored because of the completeness of its factory, its advantageous location in the Middle West and the satisfactory terms of the contract it offers to implement dealers.

Long Drive in Mountainous Country

A remarkable trip through the mountainous regions of West Virginia and Pennsylvania was recently completed by A. S. Holden, one of the district

salesmen of the F. B. Stearns Company. Driving a 30-60 shaft drive Stearns, he was continuously on the road from May 29 until July 17, his average for



R. S. HOLDEN IN HIS 30-60 STEARNS

the fifty-one days running was 85 miles per day. On three consecutive days he averaged better than 210 miles per day. The car ran perfectly from the start, nothing being done to it except filling the tanks. Holden will again start out shortly with this car and expects to make another trip of probably the same length.

On the trip above mentioned, Holden drove from Cleveland south to Columbus, to Cincinnati, through West Virginia, back again through Ohio to the coal mining regions of Pennsylvania, spending considerable time in Pittsburg. Scottdale, McConnelsville, Ligonier and other towns in that vicinity. On going through the mountains through Ligonier, Holden found that there was little or no road and for ten miles he was forced to follow a rough road that had been made by two lumber teams working there.

After leaving Pittsburg, Holden drove up through New York State, cov-

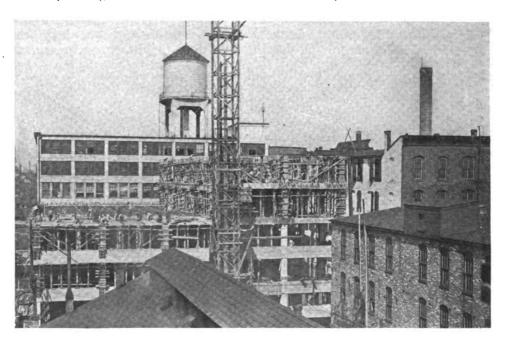
ering a thousand miles there and then drove back to the Stearns factory at Cleveland, via Erie, Pa.

Croninger is General Distributer

R. Harry Croninger has resigned the active management of the Pennsylvania Auto Motor Company to become general distributor of Pennsylvania cars. He will have control of the 500 cars which the Pennsylvania company is now putting through.

Big Addition for Stoddard-Dayton Plant

As an example of the building movement which is so much in evidence in the automobile industry just now, the accompanying illustration is interesting. It shows an addition to the plant of the Dayton Motor Company which is now being made. It consists of a six-story building, which contains 100,000 square feet of floor space and will accommodate 400 additional workmen.



ERECTING THE NEW SIX-STORY BUILDING

Firestone Demountable Rim Literature

The Firestone Tire and Rubber Company is sending out to the trade blue prints, circulars and other descriptive matter on the demountable rim. This rim is adaptable to all quick detachable tires in connection with this rim because these tires are much easier to remove and replace.

They are prepared, however, to supply these rims with regular clinchers upon order, although they do not recommend this type on account of the extreme difficulty of fitting tire and short-stem staybolts on detachable clincher rims.

New Diamond Demountable Rim Described

A catalogue has just been issued by the Diamond Rubber Company, giving a full description of the new Diamond demountable rim with inflated tire. The pamphlet, besides telling of the construction of the rim, also explains how to operate it. It is expected that the rim will become popular because of its simplicity and usefulness. The new Diamond demountable will accommodate any standard make of regular clincher tire.

Coler to Look After Publications

Ernest Coler has assumed charge of the Maxwell-Briscoe Motor Company's new publishing department. The growing interests of the company have made the creation of the new department desirable. Mr. Coler, who has looked after the Maxwell's publicity for the past two years, will continue to publish The Co-Operator, and will also be responsibile for most Maxwell literature.

How to Remove Carbon from Cylinders

Motorists who have had trouble because of carbon deposits in the cylinders will appreciate a suggestion made by Thomas B. Jeffrey, maker of the Rambler, who tells of a device employed by F. R. Fageol, the Rambler representative at Oakland, Cal.

"This method of cleaning carbon from cylinders is to us very novel," said Mr. Jeffrey. "The device employed is a common housekeeper's metallic wash rag, made of a series of wire rings interlocking with one another. The kind preferred is that in which the rings are composed of two coils of wire, one coil overlapping the joint. Another kind, not so good, is that which has no wire overlapping the joint and can, with little effort, be pulled apart.

"One of these metallic articles dropped into a cylinder and the other three cylinders made to run about ten minutes, completely removes the carbon."

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INDEX TO ADVERTISERS

Automobiles (Electric)—
Babcock Electric Carriage Co
Baker Motor Vehicle Co. 1114 Studebaker Automobile Co. 1110
Automobiles (Gasolene)—
Chalmers-Detroit Chalmers-Detroit Motor Co 1175
EMFEveritt-Metzger-Flanders Co
Herreshoff—Harry S. Houpt Co
Hudson-Hudson Motor Car Co
Inter-StateInter-State Automobile Co
Matheson-Matheson Motor Car Co
Maxwell-Briscoe Motor Co
MoraMora Motor Car Co
Mora-Mora Motor Car Co. 1175
Peerless Motor Car Company
1909 A. A. A. Tour 1144
The Pierce-Arrow Motor Car Co Inside Back Cover RamblerThos. B. Jeffery & Co 1118
Rambler Thos. B. Jeffery & Co
StearnsThe F. B. Stearns Co
Stevens-Duryea Co.
The E. R. Thomas Motor Co
Winton-Winton Motor Carriage Co Inside Pront Cover
Automobiles (Steam)—
The White Company Back Cover Lane-Lane Sales Co
Batteries-
Stanley & Patterson
Bodies-
Springfield Metal Body Co
Ot
Champagnes—
Pommery
Coils—
Heinze Electric Co
mental meeting continues and a second
Dust Preventives-
Tarvia-Barrett Mfg. Co
Tarvia-barrett Mig. Co
Electric Welding-
Standard Welding Co
canalia wearing comments
Eye Tonic—
Murine Eye Remedy Co
Graphite-
Joseph Dixon Crucible Co
Ignition Devices—
A. R. Mosier & Co
C. F. Splitdorf 1175 Risemann Magneto—Lavalette & Co. 1175 Halman Magneto—Lavalette & Co. 1175
Heinze Electric Co
j. o. meta a Co.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

Instruction—	
Correspondence School of Motor Car Practice	1176
Lamps	
Badger Brase Mfg. Co	1114
Gray & Davis	1171
Lubricants-	
Columbia Lubricante Co	1173
Joseph Dixon Crucible Co	
Vacuum Oil Co	,
Magnetos	
Eisemann MagnetoLavalette & Co	1175
_	
Oils	
Columbia Lubricants Co	1172
Vacuum Oil Co	
	•
Parts-	
	4.00
Billings & Spencer	1176
Standard Weiding Co	•
Dhota Frances	
Photo Engravers—	
Sterling Engraving Co	. 1176
Second-Hand Dealers-	
Times Square Auto Co	. 1172
Shock Absorbers-	
Bi-Cal-Ky Auxiliary Spring Co	1174
Harrford Suspension Co.	11/4
mandota despension Commission Com	
1909 A. A. A. Tou	1141
Hartford Suspension Co	1141
	1141
Signalling Devices—	
Signalling Devices— Nightingale Whistle Co	
Signalling Devices— Nightingale Whitele Co	. 1174
Signalling Devices— Nightingale Whistle Co	. 1174
Signalling Devices— Nightingale Whistle Co	. 1174
Signalling Devices— Nightingale Whigile Co	. 1174 . 1172
Signalling Devices— Nightingale Whistle Co	. 1174 . 1172
Signalling Devices— Nightingale Whigile Co	. 1174 . 1172
Signalling Devices— Nightingale Whigile Co	. 1174 . 1172
Signalling Devices— Nightingale Whistle Co. Spare Wheels— United States Spare Wheel Co. Spark Plugs— A. R. Mosler & Co. Timers—	. 1174 . 1172 . 1173
Signalling Devices— Nightingale Whistle Co	. 1174 . 1172 . 1173
Signalling Devices— Nightingale Whirdle Co. Spare Wheels— United States Spare Wheel Co. Spark Plugs— A. R. Mosler & Co. Timers— A. R. Mosler & Co.	. 1174 . 1172 . 1173
Signalling Devices— Nightingale Whistle Co	. 1174 . 1172 . 1173
Signalling Devices— Nightingale Whigile Co. Spare Wheels— United States Spare Wheel Co. Spark Plugs— A. R. Mosler & Co. Timers— A R. Mosler & Co. Tires— Ajaz-Grieb Rubber Co.	. 1174 . 1172 . 1173 . 1173
Signalling Devices— Nightingale Whistle Co. Spare Wheels— United States Spare Wheel Co. Spark Plugs— A. R. Mosler & Co. Timers— A R. Mosler & Co. Tires— Ajss-Grieb Rubber Co. Continental Caoutchout Co.	. 1174 . 1172 . 1173 . 1173
Signalling Devices— Nightingale Whirdle Co. Spare Wheels— United States Spare Wheel Co. Spark Plugs— A. R. Mosier & Co. Timers— A R. Mosier & Co. Tires— Ajax-Grieb Rubber Co. Diamond Rubber Co. Firestone Tire and Rubber Co.	. 1174 . 1172 . 1173 . 1173 . 1173 . 1173
Signalling Devices— Nightingale Whighe Co. Spare Wheels— United States Spare Wheel Co. Spark Plugs— A. R. Mosler & Co. Timers— A R. Mosler & Co. Tires— Ainx-Grieb Rubber Co. Continental Caoutchouc Co Diamond Rubber Co. Firestone Tire and Rubber Co. Fisk Rubber Co.	. 1174 . 1172 . 1173 . 1173 . 1173 . 1173
Signalling Devices— Nightingale Whirdle Co. Spare Wheels— United States Spare Wheel Co. Spark Plugs— A. R. Mosler & Co. Timers— A R. Mosler & Co. Tires— Alas-Grieb Rubber Co. Continental Caoutchouc Co Diamond Rubber Co. First Rubber Co. First Rubber Co. Morgan & Wright.	. 1174 . 1172 . 1173 . 1173 . 1173 . 1174 . 1115
Signalling Devices— Nightingale Whighe Co. Spare Wheels— United States Spare Wheel Co. Spark Plugs— A. R. Mosler & Co. Timers— A R. Mosler & Co. Tires— Ainx-Grieb Rubber Co. Continental Caoutchouc Co Diamond Rubber Co. Firestone Tire and Rubber Co. Fisk Rubber Co.	. 1174 . 1172 . 1173 . 1173 . 1173 . 1174 . 1115
Signalling Devices— Nightingale Whistle Co. Spare Wheels— United States Spare Wheel Co. Spark Plugs— A. R. Mosler & Co. Timers— A R. Mosler & Co. Tires— AisGrieb Rubber Co. Continental Caoutchouc Co Diamond Rubber Co. Firestone Tire and Rubber Co. Fisk Rubber Co. Morgan & Wright. Republic Rubber Co.	. 1174 . 1172 . 1173 . 1173 . 1173 . 1174 . 1115
Signalling Devices— Nightingale Whistle Co. Spare Wheels— United States Spare Wheel Co. Spark Plugs— A. R. Mosler & Co. Timers— A R. Mosler & Co. Tires— Ajax-Grieb Rubber Co. Continental Caoutchouc Co. Diamond Rubber Co. Firestone Tire and Rubber Co. Fisk Rubber Co. Morgan & Wright. Republic Rubber Co.	. 1174 . 1172 . 1173 . 1173 . 1173 . 1174 . 1117 . 1117
Signalling Devices— Nightingale Whistle Co. Spare Wheels— United States Spare Wheel Co. Spark Plugs— A. R. Mosler & Co. Timers— A R. Mosler & Co. Tires— AisGrieb Rubber Co. Continental Caoutchouc Co Diamond Rubber Co. Firestone Tire and Rubber Co. Fisk Rubber Co. Morgan & Wright. Republic Rubber Co.	. 1174 . 1172 . 1173 . 1173 . 1173 . 1174 . 1117 . 1117
Signalling Devices— Nightingale Whistle Co. Spare Wheels— United States Spare Wheel Co. Spark Plugs— A. R. Mosler & Co. Timers— A R. Mosler & Co. Tires— Ajax-Grieb Rubber Co. Continental Caoutchouc Co. Diamond Rubber Co. Firestone Tire and Rubber Co. Fisk Rubber Co. Morgan & Wright. Republic Rubber Co.	. 1174 . 1172 . 1173 . 1173 . 1173 . 1174 . 1117 . 1117
Signalling Devices— Nightingale Whistle Co. Spare Wheels— United States Spare Wheel Co. Spark Plugs— A. R. Mosler & Co. Timers— A R. Mosler & Co. Tires— Ajax-Grieb Rubber Co. Continental Caoutchouc Co. Diamond Rubber Co. Firestone Tire and Rubber Co. Fisk Rubber Co. Morgan & Wright. Republic Rubber Co.	. 1174 . 1172 . 1173 . 1173 . 1173 . 1174 . 1117 . 1117
Signalling Devices— Nightingale Whistle Co. Spare Wheels— United States Spare Wheel Co. Spark Plugs— A. R. Mosler & Co. Timers— A R. Mosler & Co. Tires— A)ax-Grieb Rubber Co. Continental Caoutchouc Co Diamond Rubber Co. Firestone Tire and Rubber Co. Fisk Rubber Co. Morgan & Wright. Republic Rubber Co. Tire Grips— Weed Chain Tire Grip.	. 1174 . 1172 . 1173 . 1173 . 1173 . 11174 . 1174
Signalling Devices— Nightingale Whistle Co. Spare Wheels— United States Spare Wheel Co. Spark Plugs— A. R. Mosler & Co. Timers— A R. Mosler & Co. Tires— Ajas-Grieb Rubber Co. Continental Caoutchouc Co Diamond Rubber Co. Pirestone Tire and Rubber Co. Pisk Rubber Co. Morgan & Wright. Republic Rubber Co. Tire Grips— Weed Chain Tire Grip.	. 1174 . 1172 . 1173 . 1173 . 1173 . 11174 . 1174
Signalling Devices— Nightingale Whistle Co. Spare Wheels— United States Spare Wheel Co. Spark Plugs— A. R. Mosler & Co. Timers— A R. Mosler & Co. Tires— Ajsa-Grieb Rubber Co. Continental Caoutchouc Co Diamond Rubber Co. Pirestone Tire and Rubber Co. Pirestone Tire and Rubber Co. Morgan & Wright. Republic Rubber Co. Tire Grips— Weed Chain Tire Grip Tops— Sprague Umbrelia Co.	. 1174 . 1172 . 1173 . 1173 . 1173 . 11174 . 1174
Signalling Devices— Nightingale Whistle Co. Spare Wheels— United States Spare Wheel Co. Spark Plugs— A. R. Mosler & Co. Timers— A R. Mosler & Co. Tires— AisGrieb Rubber Co. Continental Caoutchouc Co Diamond Rubber Co. Firestone Tire and Rubber Co. Fisk Rubber Co. Morgan & Wright. Republic Rubber Co. Tire Grips— Weed Chain Tire Grip Tops— Sprague Umbrella Co. Travel—	. 1174 . 1172 . 1173 . 1173 . 1174 . 1117 . 1174
Signalling Devices— Nightingale Whistle Co. Spare Wheels— United States Spare Wheel Co. Spark Plugs— A. R. Mosler & Co. Timers— A R. Mosler & Co. Tires— Ajsa-Grieb Rubber Co. Continental Caoutchouc Co Diamond Rubber Co. Pirestone Tire and Rubber Co. Pirestone Tire and Rubber Co. Morgan & Wright. Republic Rubber Co. Tire Grips— Weed Chain Tire Grip Tops— Sprague Umbrelia Co.	. 1174 . 1172 . 1173 . 1173 . 1174 . 1117 . 1174
Signalling Devices— Nightingale Whistle Co. Spare Wheels— United States Spare Wheel Co. Spark Plugs— A. R. Mosler & Co. Timers— A R. Mosler & Co. Tires— AisGrieb Rubber Co. Continental Caoutchouc Co Diamond Rubber Co. Firestone Tire and Rubber Co. Fisk Rubber Co. Morgan & Wright. Republic Rubber Co. Tire Grips— Weed Chain Tire Grip Tops— Sprague Umbrella Co. Travel—	. 1174 . 1172 . 1173 . 1173 . 1174 . 1117 . 1174

News Notes

The Nebraska Buick Motor Company, will be organized in Omaha, Neb., to handle the product of the Buick Motor Car Company in that city.

A company is being formed at Birmingham. Ala., by Eugene F. Enslen and Eugene F. Enslen. Jr., to manufacture automobiles. The capital stock will be \$200,000.

Charles T. Bauer, receiver of the Oscar Lear Automobile Company, of Springfield, O., has been granted permission to erect an addition to the plant at a cost of \$10,000, doubling its capacity Work is to be commenced at once.

The Berks County Automobile Traffic Company was recently organized in Reading, Pa., for the purpose of conducting a motor 'bus service between Reading and Bernville. William Diember is president, J. M. Endy, vice-president; and C. J Becker, secretary and treasurer.

The Cole Motor Car Co., Indianapolis, Ind., is a new organization that will put on the market two types of automobiles to be sold at popular prices. J. J. Cole, the well-known carriage builder, is president of the new concern. It will manufacture the Cole "30" and Cole "20," both four-cylinder cars.

The entire building at the northwest corner of Broadway and Fifty-fifth Street, New York, has passed under the control of the Buick Motor Company, and will be used as a salesroom and office building. For nearly a year the Buick Company has occupied a part of this building with the Lozier Motor Company and the Auto Supply Company.

Four Ramblers finished with perfect scores in the first run of the Du Bois Automobile Club of Du Bois, Pa. President B. M. Marlin drove the pilot car, a Rambler Model 34, while J. E. Du Bois, the multi-millionaire, also entered and drove his new Rambler. Sixteen cars started in the run which included Sykesville, Big Run, Punxsutawney, Brooksville and Reynoldsville, covering a distance of approximately sixty-five miles.

As an echo of the New York to Seattle race, the Firestone Tire and Rubber Company is distributing booklets reproducing in facsimile form telegrams received from the Acme and Ford drivers en route, showing the excellent service given by



Haynes cars always have perfect scores in any kind of a test.

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which proves that nothing is slighted, nothing cheapened in the Inter-State. In every way the light-running graceful, speedy, Inter-State...\$1750, complete with the U. & H. the Master Magneto ...finds its only competition in the bigh-pired, high grade cars.

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EAST, WEST,

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where our policy of careful buying of none but good quality, selling at only most reasonable profits, and always giving our customers the benefit of our long experience that has made us so successful in

NEW YORK, CHICAGO AND ST. LOUIS will be continued. This same policy, which we have maintained for ten years has long since made us

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will be of value and interest to you, whether an owner or prospective buyer of a car. It is published month-ly, contains live auto matter, describes and gives prices on over 300 cars. Every one a bargain. Single copies free.

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GUARANTEE The manufacturers guarantee to replace any broken parts due to faulty material or workmanship, if sent them, charges prepaid.

U. S. Spare Wheels are made in sizes to fit any Automobile wheel

and are made for clincher or detachable rims.

They are highly finished in Black Enamel unless otherwise ordered.

Any style of finish desired can be furnished upon application.

Covers can be furnished for any of the sizes.

For sale by all dealers in automobile supplies; or sent direct.

The United States Spare Wheel Co. 1028 Ford Bidg., Detroit, Mich., U. S. A.

Erestone tires. Attention is called to the fact at three out of four cars finished with Firestone tires and each car was still running on two of its original tires.

The Iowa Automobile Dealers' Association has been organized at Marshalltown, Ia., with twenty charter members. The officers are: P. B. Mc-Clure, Oskaloosa, Ia., president; W. E. Sears, Des Moines, first vice-president; M. J. Bannatt. Clinton, second vice-president; C. C. Eldridge, Marshalltown, secretary and treasurer. Directors—H. H. Van Brunt, Council Bluffs; P. C. Peterson. Davenport. R. A. Bennett, Sioux City: A. G. Heath, Fort Dodge; F. A. Crecelious, Waterloo.

Figures taken from the records in the office of the Secretary of State in Wisconsin show that there had been 7,383 cars registered in that State between the date of first registration and June 1, 1909. Illinois has already passed the 10,000 mark. In both of these States the Rambler leads all other makes in point of numbers. In Wisconsin this car has 733 to its credit, while the next three makes in numerical order have 697, 598 and

INCORPORATIONS

Detroit, Mich.—Griswold Motor and Body Company, with \$5.000 capital.

Farmersville, Texas.—Farmersville Auto Co., with \$2,400 capital. Incorporators: E. W. Stewart, J. B. Honaker and A. T. Yeager.

Columbus, Ohio.—Ohio Tire Co., with \$10,000 capital. Incorporators: Thomas Midgley, B. G. Huntington, Louis Fink, John A. Pfeifer and Martin E. Murphy.

Minneapolis, Minn.—Nicolet Avenue Automobile Co., with \$10.000 capital. Incorporators: F. A. Fitch, O. S. Fitch and H. W. DeWitt.

St. Joseph, Mo.—American Automobile Co., with \$25,000 capital. Incorporators: W. G. Campbell, J. Lustenberger, John F. Garber, W. P. Tracy and E. S. Ashbrook.

Tarboro, N. C.-Watson Motor Co., with \$5.000 capital. Incorporators: George Watson and W. S. Cummings.

Elkhart, Ind.—Crow Motor Car Company, with \$50,000 capital, to manufacture automobiles. Incorporators: E. C. Crow, F. A. Howe and Martin E. Crow.

Paterson, N. J.-Metz Automobile Co., with \$25,000 capital, to manufacture automobiles, motor boats, etc. Incorporators: J. M. B. Ward, S. F. Holden and P. J. McGinnis.

Toledo, O.-The Kinney Manufacturing Company, with \$100,000 capital, to manufacture metal castings. Incorporators. Isaac Kinsey, Homer V. A. Hawk, Willard Corbin, Wellington C. Smith and John V. Nandeman.

Syracuse, N. Y.—Central City Rubber Company. with \$50.000 capital, to manufacture automobiles, boats and vehicles, supplies, etc. Incorporators: David A. Gould, John R. Graham, and George H. Lloyd.

Hornellsville, N. Y.-De Schaum-Hornell Motor Company, with \$150,000 capital. Incorporators: William A. De Schaum, Harvey J. Hopkins and William C. Paul.

Lyons, N. Y.—Garlick Auto Specialty Company, with \$10,000 capital. Incorporators: Olin J. Garlock, Herman E. Whiting and Sanford D. Van Alstine.

Denver, Colo.-The Colorado Auto-Lite Company with \$800 capital. Incorporators. W. J. Pette, J. E. Fry and J. W. Foster.

Automobile Calendar

July 30-31.—Automobile race meet at Grosse Point track, Detroit, Mich.

July 30-31.—Twenty-four Hour Race Meet at Brighton Beach, N. Y., under the direction of the Motor Racing Association.

July 30-31-August 1.—Three-days' track race meet at Waco. Tex., under the direction of Waco Automobile Club.

July 31.—Automobile Race Meet at Elm Ridge Park, Kansas City, Mo., under the auspices of the Kansas City Automobile Club.

July 31.—Annual London to Cowes Race, under the auspices of the British Motor Boat Club.

July 31.—Club Run and Shore Dinner at Olympic Park, Newark, under the auspices of the New Jersey Automobile and Motor Club.

August 4, 5, 6 and 7.—Automobile Carnival at Seattle, Wash.

August 7.—Hill-climbing Contest at Richfield Springs, N. Y.



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- August 5.—Fourth Annual Hill-Climb on the a gonquin, Ill., hill, under the direction of t Chicago Motor Club.
- August 5.—A club run to Flemington, N. J., the New Jersey Automobile and Motor Clul
- August 5.—Automobile beach races at Galvesto Tex., under direction of the Galveston Aut mobile Club.
- August 5-7.—Midsummer Meeting of the Socie of Automobile Engineers at Chcago, Ill.
- August 6-7.—Automobile race meet at Fort Er race track, Buffalo, N. Y.
- August 11, 12, 13.—Motor Boat Carnival off Nev port, R. I., under the auspices of the Nev port Yacht Club.
- August 17.—Automobile Track Race Meet a Cheyenne, Wyo., under direction of the Cheenne Motor Club.
- August 19, 20, 21.—Automobile race meet, India apolis Motor Speedway.
- August 22.—A series of Speed Trials, under the auspices of the Automobile Club of Fran fort-am-Main.
- August 22-29.—Aeroplane Races at Rhein France, under the auspices of the Aero Ch of France.
- August 24-27.—Circuit of Ardennes; Liederker Cup and Voiturette Race, under the direction of Automobile Club of Belgium.
- August 26, 27, 28.—Three Days' Endurance Cotest, under the auspices of the Minneso State Automobile Association.
- August 29-September 3.—Small Car Competition under direction Automobile Club of German
- September 4-5.—Mont Ventoux Hill-climbi Contest, under the auspices of the Vanclusi Automobile Club.
- September 4-5-6.—Three-day's endurance of test, under the auspices of the Council Blu (Ia.) Automobile Club.
- September 4-19.—Austrian Aero and Industr Exhibition at Linz.
- September 5.—Aeronautical events at the India apolis Motor Speedway grounds.
- September 6-11.—Six Days' Motor Carnium under the auspices of the Lowell (Mass.) I tomobile Club.
- September 11-19.—Florio Cup Race, under auspices of the Automobile Club of Bolog Italy.
- September 12.—Two Automobile Road Races, i der the auspices of the Automobile Club Ostend.
- September 15.—Start of Endurance Contest fr Denver to Mexico City.

Mention "Automobile Topics" when writing.

September 18.—Decorated Automobile Parade at Denver, Colo., in connection with the second annual Colorado Inter-State Fair and Exposition.

September 19.—Semmering Hill-climb.

September 21-23.—Good Roads Convention of the American Automobile Association at Cleveland, Ohio.

September 21-29.—Frank A. Munsey reliability tour from Washington to Boston and return.

September 24-25.— Twenty-four hour race and short distance events, Indianapolis Motor Speedway.

September 25-October 8.—Aeronautical events in connection with the Hudson-Fulton celebration, New York.

September 30-October 8.—Exhibition of aeronautic motor engines at Paris.

October 2-17.—Aeronautical Salon in the Grand Palais, Paris, France.

October 4.—Dirigible balloon and aeroplane events, under the direction of the Aero Club of St. Louis.

October 7.—Second Annual Stock Chassis Race in Fairmount Park, Philadelphia, under the auspices of the Quaker City Motor Club.

October 8-o.—National automobile race, Indianapolis Motor Speedway.

November 6-13.—Automobile Show at Atlanta. Ga., at Auditorium Armory, under auspices National Association of Automobile Manufacturers

December 29-30.-Fourth Annual Mid-Winter Endurance Contest, under direction of the Quaker City Motor Club.

December 31-January 7.—New York City, Grand Central Palace; Decennial International Automobile Show. Under management of the American Motor Car Manufacturers' Association with the Importers' Automobile Salon and the Motor and Accessory Manufacturers. Alfred Reeves, general manager, 505 Fifth Avenue, New York City.

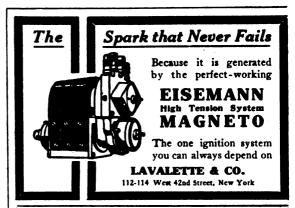
January 8-15.—Tenth Annual National Automobile Show in Madison Square Garden, New York, under the auspices of the Association of Licensed Automobile Manufacturers.

February 5-12.—Ninth Annual National Automobile Show in Chicago, under the auspices of the National Association of Automobile Manufacturers.

No guesswork about the Value of the

Its absolute Reliability and Efficiency were fully proven in the severest Automobile test ever known-the great 10,000 mile Non-Stop run of the Maxwell car.

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Finishes Second in 24-Hour Race

DISBROW & LUND, Drivers

Brighton Beach, July 30-31

A Standard Rainier 50 Stock Car covered 1042 miles, finishing second, and beating such cars as: Fiat, 6-cylinder Lozier, Stearns, 6-cylinder Acme, 6-cylinder Palmer & Singer, and Haynes.

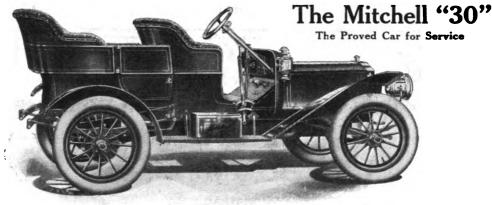
The car entered was the company's 1909 demonstrator, which has been run over 30,000 miles.

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The \$1500 Car the User Can Rely Upon

A man who buys a Mitchell car knows what he is getting. He knows he is getting a car that can be relied on—always ready to do, instead of always needing tinkering and adjusting. He knows what a supreme test is given every Mitchell before it leaves the factory--so that it comes to him a proved car for the utmost service.

That's why more Mitchells are sold to-day than of any other American car of like price. That's why dealers are glad to handle the Mitchell, because they know when they've gained a customer, they've also gained a friend.

You seldom see a Mitchell car in the repair shop, although there are more than 8,000 now on the road. They have stood all kinds of weather—all kinds of

stood all kinds of weather—all kinds of punishment.
You don't see Mitchell cars being tinkered with or abandoned along the road. You don't hear Mitchell motors "bucking." They just keep running, care-free and without trouble.

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If we were to show the Mitchell "40" at an exhibit of highest priced cars—\$4000 and up—you would admit its right to a dominant place in such a display. Yet this magnificent car is only \$2000.

A man of moderate means can own it. A millionaire cannot secure a car that will give better satisfaction.

a car that win give better.

The "40" is a typical product of a motor plant turning out maximum values at minimum cost.

Rich looking, clean cut, roomy and powerful, it typifies Mitchell Automobile supremacy.



There are more Mitchells owned by professional men, who must have a car they can count on in business, than any other five makes combined.

other five makes combined.

Doctors, lawyers, real estate men and all who have to "get there"—on time—such men know the Mitchell's worth. They know the makers don't spout yards of "hot air" about it, but just make it the best \$1500 car that eight years' experience has shown them how to do. They know the reason the Mitchell is always ready to go is because years experience has shown the Mit-chell is always ready to go is because it's free from mechanical trouble. The Mitchell "30" will run an entire season without once going to the shop

season without once going.

for adjustment.

It is so thoroughly pre-tested and adjusted at the factory, there's no adjusting after the owner gets his car. Every Mitchell car is tried out and adjusted on the roughest roads of Wisconsin before it leaves the factory. It gets actual road punishment up to 250 miles over hills, through sand, on rocks and aright atretches.

road punishment up to 250 miles over hills, through sand, on rocks and straight stretches.

If a car can come up to the Mitcheil test—it's a car worth having.

More than \$300 worth of necessary equipment, which you would have to buy as "extras" with any other car at the price, are included with the Mitchell "30" at \$1500.

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Its lightness and simplicity of operation are added reasons for the Mitchell's popularity.

Nickel alloy and vanadium steel are used in the crank-shaft, transmission and rear axle shaft—in all driving mechanism. We've never known a Mit-

chell crank-shaft to break. The four cylinders are cast separate. The springs are vanadium steel. Aluminum castings are used wherever possible, strengthened with bronze where there is strain. Selective sliding gear transmission—such as used on the highest priced cars. We pump twice as much water through the water jackets, per minute, as any other car, keeping the engine aways cool. Wheel base 106 inches. Body wholly of metal. Tonneau detachable—choice of touring body, surrey body, rumble-seat roadster or runabout deck, at \$1500. It's the ideal car to sell or to use. to sell or to use.

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The Feature of the

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was the Remarkable Showing of the

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which finished 3rd, covering 968 miles, and at the conclusion of the race was in perfect condition and capable of doing it all over again. It ran for $6\frac{1}{2}$ hours on its first set of tires and used 50% less tires than any other car in the contest.

The Palmer-Singer Six-Sixty, driven by Howard and Lescault, which made this remarkable showing, is a 1908 stock car, and has been driven over 20,000 miles. This car is owned by Mr. Ray Howard, an amateur, to whose careful, sportsmanlike driving much of the credit of its showing is due. He shares with Lescault the honors of a careful campaign and a brilliant performance. It defeated some of the costliest makes with the utmost ease, not by virtue of the whirlwind speed of which it is capable, but by the perfect regularity of its running, its utter freedom from engine troubles, its marvellous endurance and its great strength, which fits it to easily survive any usage. These are the qualities which YOU want when YOU buy a car.

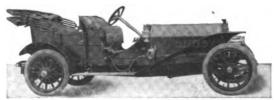
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If you are particular about style, you will find genuine beauty in our designs, taste in the minor fittings and a certain individuality that gets far away from the "factory-made" feeling.

We have letters by the dozens from many prominent people who have driven STUDEBAKER cars with perfect satisfaction, over all kinds of roads and in both hemispheres.

We will be glad to let you see what they say about their cars any time you call. Many of them have owned various makes of the highest priced foreign cars—but now swear by the STUDEBAKER.

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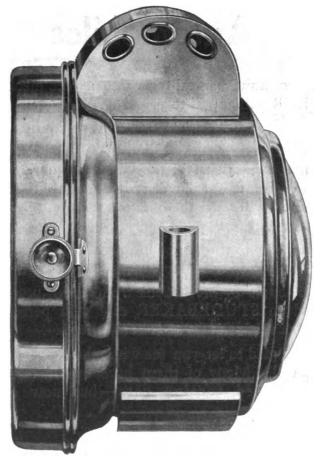
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While other tire manufacturers are figuring percentages, neglecting to mention the number of tires of their make worn out on the trip, and estimating an absurd number of miles, we shall give a plain statement of facts and nothing but facts.

On the GLIDDEN TOUR which ended at Kansas City July 31, the

two Maxwell cars equipped with

finished the run of 2,700 miles from Detroit on the original casings and with only two punctures. Furthermore, these eight tires were identically the same tires which carried these two cars from the Maxwell factory at Tarrytown, N. Y., overland to Detroit, a distance of about 800 miles. it! 3,500 miles of continuous running over some of the worst roads in the world and only two punctures at a retail repair cost of 50 cents! All the other AJAX TIRES finished with the original air put in them at the Tarrytown factory.

Below is an unsolicited telegram sent by Mr. W. F. Smith, who was in charge of both Maxwell cars on the Glidden Tour:

Horace De Lisser, President.

Kansas City, Mo., July 31.

Ajax-Grieb Rubber Co., New York.

Congratulate you on magnificent showing made by AJAX TIRES used on Maxwell cars in Glidden Tour. Two punctures only trouble during entire trip.

W. F. SMITH

AJAX TIRES Are Guaranteed for 5,000 Miles or 200 Days' Service. Write for a copy of the Guarantee.

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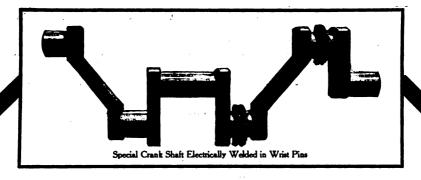
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GLIDDEN TOUR

For the Sixth Time Shows

Diamond TIRES ARE THE BEST

Forecasting the Result as the Tour Finished

Kansas City, July 30.—Congratulate you on service given by Diamond tires on our No. 5 car. Four original casings are on the car after 2,700 miles of hard work, and all in splendid shape.

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Gustave Buse.

KANSAS CITY, July 30.—Mason Car 112 finished Glidden Tour on four original Diamond casings, and same show practically no wear. Well satisfied.

C. F. CLAIBERNE.

KANSAS CITY, July 30.—One spike puncture only tire trouble Diamond equipment, Midland Car No. 12, Glidden Tour. Service very satisfactory.

E. O. HAYES.

KANSAS CITY, July 30.—Absolute satisfaction with Diamond equipment on Marmon Car in Glidden Tour; also heartily recommend your new Marsh rim.

Frank E. Wing.

Reports, incomplete on this date, July 31, forecast with equal strength the Annual Diamond Triumph

THE DIAMOND RUBBER COMPANY Akron, Ohio



Original features—thoroughly sound in practice—proved in prolonged tests by over one thousand of this model, have brought the superb four cylinder twenty-four horse power "MODEL X" into the very front rank of high grade motor car construction.

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F&S

Annular Ball Bearings

IN THE

24-Hour Brighton Beach Race

Four of the eight cars, RAINIER, 2nd, PALMER-SINGER, 3rd, STEARNS, 4th, LOZIER, 5th, used **F. & S.** ANNULAR BALL BEARINGS.

These four stock cars, throughout the race, were wholly free from bearing troubles, while cars using other makes of bearings ran hot, causing withdrawals.

N. B.—In the PRINCE HENRY TOUR F. & S. BALL BEARINGS were used on the winning car, and on the first six cars; they were also used on the cars that won both of the Speed Trials, thus duplicating last year's win on F. & S. BALL BEARINGS. In Germany's other 1909 National Event, the recent Motor Wagon Trials, F. & S. BEARings won Six First Prizes in Six Different Classes, and these victories recall to mind victories at Nice, Daytona, Fla.; the Grand Prize Race at Savannah, Ga.; the Grand Prix of France, the Semmering Hill Climb, and last, but not least, the St. Petersburg-Moscow Endurance Trials

J. S. BRETZ COMPANY

Sole Importers, Times Bldg., New York

Mention "Automobile Topics" when writing.



NEW YORK, AUGUST 7, 1909. Vol. XVIII. No. 18. TABLE OF CONTENTS The 24-Hour Race at the Brighton Beach (N. Y.) Track July 30 and 31-The Automobile Topics Touring Supplement-1909 A. A. A. Tour. Section 4-Minneapolis to Fort Dodge......1209 No French Salon This Year..... 1218 Helping People Against Their Will.........................Editorial 1228 Catering to the Farmers...... Editorial 1229 Parry to Begin Turning Out Cars...... 1235 Automobile Calendar 1240

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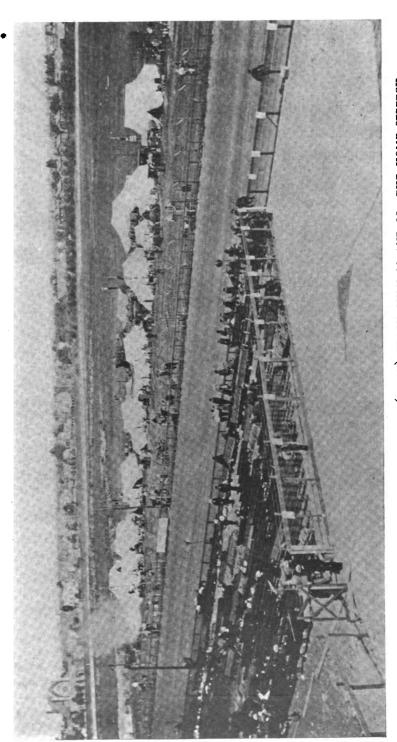
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THE 24-HOUR RACE AT THE BRIGHTON BEACH (N. Y.) TRACK JULY 30 AND 31-THE HOME STRETCH

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THE AUTOMOBILE USERS' WEEKLY

Vol. XVIII.

NEW YORK, AUGUST 7, 1909.

No. 18.

TOPICS

"Under our loosely drawn laws, when any harum-scharum fugitive from Paris may tear along the highway in charge of a

machine of death-dealing potentialities, his features would usefully adorn a rogues' gallery." Such is the way in which a metropolitan daily endorsed the plan to take Bertillion measurements and photographs of reckless chauffeurs, "known," it says, "as such by the record of accidents strewn in the road of their successive engagements" The idea in mind that if record is taken of the personal characteristics of chauffeurs it will be easier to detect and punish them when they commit offences. There is undoubtedly merit in the plan, and it would accomplish a great deal of good if carried out. The chauffeur, whether of the paid class or not, subjects himself to treatment of this sort when, through recklessness or otherwise, he becomes concerned in a serious accident.

But when it is proposed to go farther and subject all motorists to the Bertillion treatment, the absurdity of the plan becomes apparent. The Bertillion system was invented for application to criminals. There was no expectation then, and there is none now, that it would ever be extended to the great body of the people. The very thought of such a thing is repugnant to modern ideas. It is lawful, and in conformity with prevailing opinions, to "mug" a man when he has taken his place in the criminal class, but not even the knowledge that at some time or other a useful purpose might be served by "mugging" an ordinary citizen would reconcile society to the idea of doing so. Motorists are not a class distinct from ordinary citizens, and there is no earthly reason why they should be treated as if they were. When we reach the point of deciding to "mug" everybody, motorists will be included. Until then we can safely leave them alone, at least as long as they have actually done nothing that calls for unusual treatment.

A "postmistress" (i. e., the mistress of a post office) and a railroad yardmaster, both of Michigan, motored to Grand Rapids recently, and entering a local newspaper office, said they wanted to be married in front of the building and their pictures placed in the paper. The staff photographer was called, the minister stepped into the automobile, where the principles were seated, and tied the knot while the camera man snapped his shutter. The pictures appeared in the paper all right, but Mr. and Mrs. Streeter were then out of town, touring the State on their wedding trip.

It has been suggested as a move toward safety that the fences surrounding horse-tracks used for automobile racing be taken down. The sport must be made safe in some way.

The town of Fortville, Ind., which was mentioned in Automobile Topics two years ago as the only town in Indiana where gasolene could not be purchased, has redeemed itself. Although it had a population of 1,500 at that time, there was not an automobile in the town, and gasolene was unknown. Now its five physicians each have automobiles, probably a dozen other machines are owned in the town, and there are two very creditable repair shops and agencies.

A tourist was telling of one of his recent trips, and in the course of his remarks said that at one place he found excellent hotel accomodations, "with rates in keeping with the high-class service." One has only to know how high-class the service was to get a line on the rates.

There was in San Jose, Santa Clara County, Cal., a ward where Mitchell car owners could leave their babies in charge of competent nurses, while the parents were enjoying the Fourth of July reunion, held on the 5th, in that city. All the comfort and conveniences of home, as it were.

A new use for inner tubes has been discovered at Ostend, the famous European bathing resort. This boomer of the rubber business is a chauffeur who, "dressed in scarlet and with a Phrygian cap, entered the sea with the inflated inner tube of a motor car tire." First he trundled it as a child does a hoop, we are told. Then sitting on it as in a life buoy, he paddled about, propelling himself with his hands or lay basking in the sun. His enjoyment was so manifest that in a joke a party of women swimmers borrowed the tire and, with shrieks of laughter, imitated his antics. Here is a use for spare tubes. Water won't hurt them, and they might as well justify their existence instead of reposing idly in a tool receptacle.

"The mile oval will be in perfect condition two weeks before the running of the next meet. Both turns will be practically reconstructed, while the entire track will be treated with a special preparation to hold the dust and add speed. Improvements also will be made wherever needed in the club-house, grand stand and field stand arrangements." Such is the promise of the Brighton Beach track. It will occur to some people to wonder why all this was not done for last week's meeting.



Brighton Beach Race a Mild Saturnalia

George Robertson and Al. Poole, driving a Simplex car, won the 24-hour race promoted by the Motor Racing Association at the Brighton Beach, N. Y., track on July 30 and 31, covering 1,091 miles, 86 miles behind the record made by Robertson and Lescault, also in a Simplex on the same track in October, 1908. A Rainier car, piloted by L. A. Disbrow and C. H. Lund was second, 50 miles behind, while a Palmer and Singer, Lescault and Howard driving, finished third out of a field of eight starters and five finishers. Getting the lead Saturday morning the victor had no trouble in keeping to the front and won by a wide margin.

Financially the meeting was a huge success. There was a crowd estimated at 15,000 on Fiday night and 20,000 on Saturday night. Otherwise it was "on the blink," as one patron expressed it, the racing being dull and uninteresting, the track bad everywhere and actually disgraceful on the turn coming into the homestretch. and the treatment of the spectators was of the sort to cause them

to rue the hour of their coming. The excitement and thrills that were expected were missing for the most part, although there was a number of accidents of a more or less serious nature. There were many things of the kind to remind one of six-day bicycle races in Madison Square Garden, and the conglomerate assemblage enjoyed a mild Saturnalia, the keynote of which was that "everything went," especially throughout the night.

Promptly at 9 o'clock the eight cars that were to compete in the race came out of the paddock in the infield of the track, and after several trial spins around the course were lined up tor the start. The cars were placed across the track in the following order from the pole: Acme, 1; Lozier, 2; Simplex, 3; Stearns, 5; P. & S., 6; Rainier, 7; Fiat, 8, and Haynes, 9. Accompanied by a dazzle of photographers' flashlights and the blowing of horns and automatic bugles, Starter Fred Wagner gave the signal to go and the race that was to continue twenty-four hours was on.



THE WINNING SIMPLEX AND THE DUSTY, BUMPY TRACK

Smiling George Robertson, the winner of the record breaking twice around the clock race on October 2 and 3 last year, and the favorite in this race, shot to the front from third position from the pole, and before the first turn was reached had the inside of the track with the Simplex a length and a half in front of the Stearns driven by Laurent Grosse. The other cars trailed behind. On the back stretch the shadows of the cars could be discerned as they raced along, and it was seen that the Stearns had closed up a little on the flying red painted Simplex. The Lozier, Ralph Mulford driving, was close behind, and as the three cars turned into the home stretch, the 15,000 spectators let out a prolonged cheer.

Robertson managed to hold the lead and flashed across the tape a leader in the initial mile of the long contest. It was easily to be seen that the driver of the Simplex and winner of the 1908 Vanderbilt Cup race was a favorite with the crowd, for when his time for the first mile, 1.17 3-5, was announced, the noise was terrific.

Ralph De Palma, credited the best track driver in America at the present time, passed the Lozier on the stretch on the first mile and finished the first circuit in third place with the other cars and their drivers in this order: Lozier (Mulford), Rainier (L. A. Disbrow), Acme (Cyrus Patschke), P. & S. (Frank Lescault), and Haynes (Frank Sweigert). The Simplex was still leading at five miles, having completed the distance in 5.52 3-5. During the five miles the crowd was kept on edge by the exciting duel between the Simplex and the Stearns. On the sixth mile the Fiat got within striking distance of the two leading cars and added to the excitement. Robertson held his own on the stretches, but when the curves were negotiated the lead was generally taken by the Stearns.

On the seventh mile as the Simplex and the Stearns entered the back stretch, the latter car shot to the front and was in that position when the tenth mile was finished in 11.29 4-5. On the twenty-third mile the Stearns narrowly escaped going through a fence, and the Fiat took the lead. When the time for the first half hour was announced De Palma was leading with 26 miles. From the start considerable comment was caused by the driving of Disbrow in the Rainier. Many of the automobile sharps around the club house did not think the Long Islander had a chance, but when the cars flashed past the grand stand he was always up with the leaders.

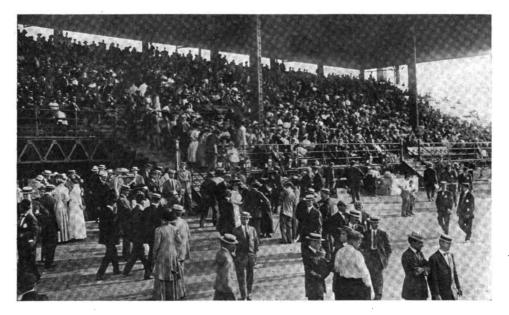
At the end of the first hour De Palma in the Fiat, was leading, with 53 miles, while the scores of the other cars were: Stearns, 48; Lozier, 48; Simplex, 47; Rainier, 46; P. & S., 45; Acme, 41, and Haynes, 41. During the first hour Robertson lost considerable time through Except for exciting trouble. brushes now and then there was little excitement during the next hour. The working of the six-cylinder cars, the Acme, P. & S., and Lozier was critically watched by those interested in the motor car industry. Robertson did some fast driving during this hour and added 55 miles to his score, putting his car in second position. The following was the score at the end of the second Fiat, 104; Simplex, Stearns, 101; Lozier, 95; Rainier, 96; P. & S., 90; Acme, 87; Haynes, 86.

The first and only serious accident in the race occurred several minutes before midnight. Although the track was declared by the management to be in perfect condition, bad spots were noticed early Friday afternoon during the running of the short distance races. The most conspicuous places that needed repairing were at the turns, and when the heavy cars began to grind

around these they deteriorated rapidly.

As the Stearns driven by Marquis, with Lang acting as mechanician, was making the turn out of the back stretch, it hit one of the bumps on the track and crashed into a ditch, breaking both front wheels. Marquis and Lang were hurled from the car and crashed to the ground with terrific force. The special ambulance stationed at the track was hurried to the scene of the accident and the two injured men were taken to the

at the same track. When the next hour's score was announced there was no relative change in the standing of the cars, except that the P. & S. had moved into sixth place. The Fiat had increased its lead over the Simplex, however, and was now leading the New York car by 7 miles. At one time during this hour only four cars were on the track. These were the Fiat, Simplex, Rainier and the Palmer & Singer. The Lozier was called off to fix its tail



A SECTION OF THE GRAND STAND

emergency hospital at the track. At first it was reported that they were seriously injured, and great excitement reigned among the officials, but later the doctors said that besides being severely bruised the men were uninjured.

During the third hour the Simplex gained a mile on the Fiat, while the Rainier jumped from fifth to third position, passing the Stearns and the Lozier. The Fiat's score was 154 miles, four miles behind the record made by Strang and Basle in a Renault last year,

lights, the second time within a few minutes; the Haynes crew was working on the engine; the Stearns was having new wheels put on, and the Acme camp would not give the reason for their car being off the track.

When the 2 o'clock score was posted it was seen that De Palma was still leading, having 254 miles and being 11 miles behind the record made by the Renault last year. The Simplex was running second, 8 miles behind the Fiat, while the Rainier was still in third place, 8 miles in the rear of the Simplex. The

Stearns was off the track during this hour as was the Haynes. The latter car was off the track six hours, while a new hub for the front wheel was sent from New York. Unfortunately this was the only part that the crew did not have handy at the track. When the car went off the track its score was 122 miles. After being off the track seven hours it returned in the race, but was finally withdrawn at 11 A. M., with a broken crank-shaft.

During the sixth hour De Palma let down a little on his pace and Robertson gradually began to overhaul the Italian car. At the completion of the hour Robertson was leading, three miles in advance of the Fiat, while the Rainier occupied third place, being only five miles back of the Fiat. The Stearns had resumed running during this hour, after being off the track two hours.

With the losing of first place, De Palma went tearing around the track in a desperate attempt to overhaul the leading Simplex, and at the posting of the 4 o'clock score he and Robertson had the same mileage, 343. They were thirteen miles behind the record made by the Renault. Charles H. Lund releived Disbrow at the wheel of the Rainier and kept a conservative pace, remaining in third place. The P. & S. moved into fourth place, displacing the Lozier; while the Stearns took sixth position, forcing the Acme to the rear. During this hour the Lozier froze a propeller shaft and lost several hours.

Of the 15,000 persons who witnessed the start of the race, but 3,000 were at the track when dawn broke. It was far from a bright looking crowd that occupied the gand stands when Old Sol peeped over the ocean's horizon. Here and there in the huge grand stand men could be seen sleeping in their seats, while a number of motor cars about the track were occupied by persons, male and female, whom old King Som-

nia claimed. Every once in a while a few wide awake persons would let out a yell when two of the cars came down the stretch close together, but that was the only excitement during the wee hours of the morning. It was about this time that the public telephones under the stands began to make money for their owners. More than one person who had visited McGrath's lubricant station in the old betting ring could be heard explaining to some one at the other end of the wire in a sweet voice that they were detained over night at the office, but would be home sure, "dear," to-night.

While these things were going on, the Fiat had broke its timing mechanism and was running in third place, with the Simplex occupying the leading position and the Rainier acting as runner-up. The Simplex was now driven by Al Poole and had traveled 391 miles during the 8 hours. It was 17 miles behind the record of the Renault. The Rainier was 19 miles in the rear of the Simplex and 6 miles ahead of the Fiat.

Nothing of an exciting nature occurred from then until the end of the race. The Simplex graually increased its lead over the Rainier, while the latter's driver saw to it that their car remained in second place. About 7 o'clock in the morning, as the Stearns was making the turn out of the home stretch, one of the steering couplings broke and the car dashed into the bushes at the northern end of the track. Grosse and Cole were in the car at the time, but were uninjured.

Just after the tenth hour score was posted the Acme went to the paddock with a cracked frame and ignition trouble. After remaining out of the race for four hours, it returned to the track and after going ten miles went off again. Again it resumed the race two hours later, but ignition trouble still followed in its wake and after going

only two laps of the track it again retired. Three hours later, or at 3 o'clock in the afternoon the spectators were surprised to again see the big white car race aroung the track. For two hours the drivers of the Acme kept the crowd enthusiastic with its mad dash around the track. It was so far in the rear, however, that the other drivers paid little attention to it as it passed them. At 5 o'clock the car was withdrawn with a broken frame.

From the eighth to the fifteenth hour the Fiat ran in third place, but on the seventeenth hour it was passed by the Palmer & Singer. In the following hour, after traveling 691 miles, it was withdrawn with the rear axle sprung and the gears failing to mesh properly.

It was the intention of the Motor Racing Association to have the race go continuously for twenty-four hours, but late Saturday afternoon, after several of the drivers, including Robertson and De Palma, had complained in vain of the condition of the track, police officials examined the turns and told the management that the race would have to be stopped and the track repaired before the cars would be allowed to continue. Reluctantly, the officials called the cars off the track at 5:05 and kept them in the paddock, strictly under control, for one hour, while a number of laborers fixed up the turns and home stretch.

At the expiration of the huor's respite the cars were again started, the Simplex getting away in the lead, while the Rainier was delayed with clutch trouble. From then on the race was uninteresting from the spectators' standpoint, except for the gruelling pace set by the Lozier and the Stearns near the end. These cars were too far behind the three leaders to cause the latter any worriment, so they were allowed to race their "heads off"

without meeting any opposition from the Simplex, Rainier or the Palmer & Singer. The running of the latter car during the entire race was commendable. Ray Howard, owner as well as one of the drivers of the car, and Frank Lescault, the alternate driver, ran the car consistently and gradually worked their way from sixth position during the first two hours to third at the finish.

At five minutes past ten in the night, under similar circumstances to those that attended the start, with the addition of red lights, Starter Wagner flashed the checkered flag in front of the Simplex and the race was won. More than twenty thousand persons and several hundred automobiles were gathered around the track when the race ended.

While the race was a success financially, it did not make as good an impression on the spectators as previous affairs held at the local track. was partially due to the bad condition of the track and consequent slow time by the cars, and the accommodations. Those who witnessed the races from the field stand were especially put out. They had to pay seventy-five cents for the privilege of going into an uncovered stand with all the seats almost level with the ground. While those in front could see the cars as they went around the track, the unfortunates in the rear had to be satisfied with hearing the noise. The final scores of the competitors were as follows:

Simplex, George Robertson and Al. Poole, 1,091 miles; Rainier, L. A. Disbrow and C. H. Lund, 1,041 miles; Palmer & Singer, Frank Lescault and Ray Howard, 968 miles; Stearns, Laurent Grosso, J. B. Marquise and Tom Lynch, 919 miles; Lozier, Ralph Mulford and Harry Cobe, 885 miles; Fiat. Ralph De Palma. E. H. Parker

and Edward Hawley, 697 miles; Acme, Cyrus Patschke and H. A. Vantine, 385 miles; Haynes, Frank Sweigert and John Looney, 219 miles.

The Friday afternoon programme of short distance races resulted in several interesting contests which put the crowd of five thousand enthusiasts on edge for the big race that was scheduled to start that night. The main event on the programme, the Brighton Motor Marathon at 100 miles, was won easily by the Chalmers-Detroit "Blue Bird" piloted by Lee Lorimer. Lorimer established new figures for 60, 70 and 80 miles, when he surpassed the marks set up by Clements in a 30 hp. National at Indianapolis, on November 4, 1905.

The "Blue Bird" flashed past the grandstand for the sixtieth mile in 1.08.06 4-5, which was 5 3-5 seconds better than Clemens' time. On the seventeenth mile he was 44 2-5 seconds better than the record when he completed the distance in 1.18.49. The eightieth mile was completed in 1.29.31 1-5, which was 1 minute 15 3-5 seconds better than the record.

The Chalmers-Detroit had little difficulty winning the event, as it led from the start. Five cars, the Midland, S. F. O., Chalmers-Detroit, Acme and Kissel Kar, answered Starter Wagner's "Go!" The latter two were added starters, the former driven by Frank Dearborn, and the latter by Wally Owen. The "Blue Bird" ended the first mile in 1.12 2-5, with the S. P. O. in second place. The Kissell Kar retired on the fourth mile and on the same mile the Midland, driven by W. O. Stokes, broke a right front wheel and went through a fence on the entrance into the home stretch.

At twenty-five miles the Chalmers-Detroit had two laps on the Acme, and one on the S. P. O., and had finished the first quarter of the race in 27.24 2-5. As the Acme was rounding the turn

into the home stretch on the thirty-fifth mile, the left rear wheel came off and the car was eliminated from the race. The crowd in the grandstand greeted the reappearance of the Midland on the track on the forty-sixth mile with great hand clapping and blowing of horns. On the forty-seventh miles the Chalmers-Detroit lost two, while a change of tires was made, but when the half-way mark was reached the car Lorimer was handling was still two laps ahead of the S. P. O. and about forty miles ahead of the Midland.

Instead of dimishing its speed, the Chalmers-Detroit increased it as the race neared the end, and between the sixty-fifth and seventieth miles the car averaged 61 seconds to a mile. At the seventy-fifth mile the S. P. O. was 4 laps behind, while the Midland was about 45 miles in the rear. The S. P. O. lost three laps on the seventy-ninth mile, when it changed tires. The Chalmers-Detroit finished the race in 1.12.31 3-5, seven laps ahead of the S. P. O., and 49 in front of the Midland

The first event of the day was the mile time trials and four cars partici-Ralph De Palma in the Fiat "Cyclone" was the first to be sent around the track. De Palma sent the track racing car around the circuit in 54 3-5 seconds, which was 2 2-5 seconds behind the record he made for the track on October 2 last year. Charles Bowers, in the Peerless "Red Dragon," was the next to try and was timed at 1 06 4-5. Chevrolet, the winner of the recent Cobe race, completed the mile in 582-5 seconds. Edward Grabow's Mercedes developed clutch trouble just as he was about to make the trial and he had to withdraw.

The ten-mile motor cycle handicap was an interesting affair from start to finish. Stanley Kellog in a Merkel won

the applause of the spectators with the daring with which he took the curves of the track on his machine. He had little difficulty winning the race from J. F. McLoughlin. On the second mile of this race the crowd in the grand stand let out a cry of horror when one of the machines was seen to go through the skeleton fence in a cloud of dust at the turn into the homestretch. Almost before the dust had settled another machine was seen to crash into the same place. Immediately the automobile ambulance stationed at the emergency hospital at the track dashed to the spot. It was learned that the first machine, driven by Edward Seery, while making the turn got stuck in the soft sand and the driver lost control of it. Fred Voelker's machine, which was immediately behind Seery, also got stuck in the sand and crashed into Seery and his machine. None of the drivers was seriously injured, although they were severely shaken up and bruised. After several hours stay in the hospital they were able to go about.

Frank Ross had a walkover for the E-M-F. in the five-mile event for cars selling from \$851 to \$1,250. fifty-mile race for cars selling from \$1,501 to \$2,000, a Buick and Oldsmobile were the only starters. The race was a farce from the start and the spectators greeted the Oldsmobile with shouts of derision every time it passed the grand stand. From the start Chevrolet, who was piloting the Buick, set a very fast pace, but as far as R. Craig Van Deventer in the Oldsmobile was concerned it was a joy ride instead of a race he was in. The Oldsmobile circled the track at a ridiculously slow pace with Van Deventer smiling and seeming to enjoy things while the crowd mockingly cheered him. Chevrolet finished the fifty miles a number of miles in the lead in 55.39 2-5.

While the fifty-mile race was unin- : Midland (Stokes) third.

teresting, the next event, the five-mile free-for-all, had the spectators standing on their feet throughout its running. The race was between the Peerless "Red Dragon" and Fiat "Cyclone," and it was the closest contested event of the For the first three miles De Palma and Bowers drove their cars so close together that only one yard separated them. On the back stretch on the fourth mile De Palma got a slight advantage over his opponent, but as the cars passed the grand stand Bowers evened matters and the cars raced around the course for the final lap. As the cars entered the homestretch they were running even, but on the stretch De Palma gradually drew away from the "Red Dragon" and crossed the line a winner by about 25 yards.

Frank Ross in the E-M-F. attempted to lower the track record of 52 I-5 seconds, held by De Palma, but the best he could do was 1.34.2-5. Hughes in an A-K "Gunboat" also attempted to reduce De Palma's figures, but his time was 1.20 4-5.

Mile Time Trials.—Free for all—Fiat (De Palma) first, time 54 3-5 seconds; Buick (Chevrolet) second, time 58 2-5; Peerless Red Dragon Bowers) third, time 1.06 4-5.

Ten Mile Open Motor Cycle Handicap.

7 hp. Merkel (Kellog), scratch, first, time, 10m. 162-5s; 6 hp. N. S. U. (McLoughlin), 60 seconds, second; 5 hp. Indian (Decker), 90 seconds, third.

Fifty Miles.—Open to cars selling from \$1,251 to \$2,000—Buick (Chevrolet) first, time 55m. 39s.; Oldsmobile (Van Deventer) second.

Five Miles.—Free-for-all—Fiat Cyclone (De Palma) first, time 5m. 51 3-5s.; Peerless Red Dragon (Bowers) second.

One Mile Record Trial—E-M-F. (Frank Ross). time 1m. 342-5s.

One Mile Record Trial.—Allen-Kingston Gunboat (H. Hughes, time Im. 20 4-5s.

Brighton Motor Marathon.—100 miles; for cars selling from \$2,001 to \$3,000—Chalmers-Detroit (Lorimer) first, time 1h 12m. 31 3-5s; S. P. O. (Juhasz) second; Midland (Stokes) third.

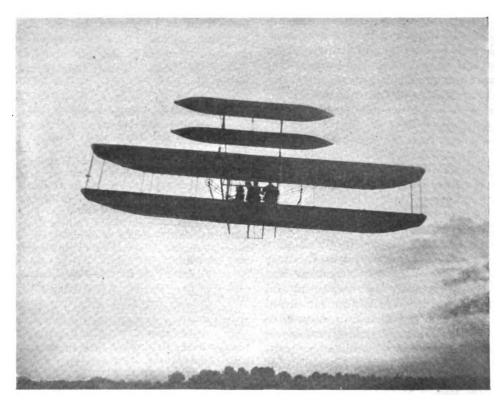
Wrights Fulfill All Government Requirements

The United States Government is now the owner of the Wright aeroplane, while the Wright brothers are \$30,000 richer than they were a week ago. It all came about through the successful flight of Orville Wright on Friday, July 30, when he fulfilled the government requirements, and exceeded them so greatly that he earned a bonus of \$5,000 into the bargain. The purchase was then made, \$25,000 being the price paid for the machine.

The remarkable test was made over a straightaway course of five miles and return, the machine being piloted by Orville Wright and carrying a passenger, Lieutenant Benjamin D. Foulois. He maintained a speed of 37.785 miles per hour during the outward journey

from Fort Meyer to Shooter's Hill, and increased it to 47.431 miles per hour on the return journey. The average for the round trip was 42.583 miles per hour, and as the requirements were that 40 miles an hour should be made the Wrights get a bonus for two extra miles. The fraction of a mile, a little more than one-half, does not count, this matter having been decided some time ago, when the contract was made for the purchase of the Baldwin dirigible balloon.

In accomplishing this money-producing feat Orville Wright established a new world's record for aeroplanes in cross-country flying. No one has ever before flown across territory as rough and broken as lay under the course, and



THE SUCCESSFUL FLIGHT OF ORVILLE WRIGHT

never before has a flight of equal distance been attempted by any aeroplane carrying two persons.

The conditions of the speed test were as simple as they were severe. aeroplane was required to fly five miles straightaway from the Fort Meyer parade grounds to and around an army balloon anchored at the end of the course and back to the starting point. For every mile of speed less than forty miles an hour a penalty of 10 per cent. on the contract price of the aeroplane was to be deducted, and for every mile in excess of forty miles an hour a bonus of 10 per cent, was to be added. speed of less than thirty-six miles an hour meant the rejection of the machine.

Over a dangerous, and because of itsimany air currents, treacherous territory, the course lay almost due south from the flagstaff of the fort. The five-mile limit was marked by a small army balloon anchored on Shooter's Hill, two miles back of Alexandria. Another balloon at Four Mile Run marked the middle of the course and served as a guide to the aeronaut. A field telephone was established between Shooter's Hill and the starting line.

Lieutenant Benjamin D. Fouois, of the Signal Service, and a member of the board, was designated as the passenger required to be carried by the aeroplane during the speed test. The start was made at a little before 7 o'clock in the evening, under weather conditions that were all that could be desired, although there was a slight wind across the course. With Lieutenant Foulois as passenger, Orville Wright sent his aeroplane down the monorail, upon leaving which the machine kept close to the ground. Then it swooped upward, and circled around the field, and then headed south. Stop watches were snapped by a group of army officers, and the spectators cheered as they realized that the aeroplane was off.

When Wright left the field at Fort Meyer he was 100 feet in the air. A quarter of a mile away he was 200, not because he had raised the craft higher, but because the ground dropped away beneath him. He flew in a straight line, aiming for an indistinct yellow balloon, on Shooter's Hill, five miles to the south on the outskirts of the old town of Alexandria, Va. Straight along he went and presently was 300 feet in the air.

It seemed a long time before the aeroplane came in sight on the return trip. But it was finally sighted, and a few minutes later it made the descent, and everybody knew that the trial had been a success. President Taft arrived in an automobile just too late to see the descent, but he was much pleased when he heard of the successful conclusion.

Cheyenne Has a Four-Mile Race Track

Not to be outdone by Eastern motorists, automobilists of Denver, Colo,, and Cheyenne, Wyo., have had constructed in the latter city a four-mile automobile race course, rivaling in magnificence the one nearing completion at Indianapolis.

The track, which is exactly four miles long and shaped like the letter "D," is around Sloan's Lake, and a view of the entire course may be had from the conmodious grand stand. The inauguaral meet is scheduled to be held August 17 The principal event will be a 200-mile race for gasolene cars only. Other events include a 25-mile race for gasolene cars and a 10-mile exhibition race by Geo. Hering, in a Stanley Steamer. Other entries received so far are the Marmon, two Coburns and a Stevens-Duryea.

Curtiss is Off for Rheims

Glenn H. Curtiss, the American aviator, sailed for France Thursday, where he will take part in the week of aerial contests at Rheims, which begin August 22. Other competitors include Latham, monoplane; Bleriot, monoplane; Delagrange, biplane with tail; Farman, biplane; Sommer, biplane; Santos Dumont, monoplane; the Count de Lambert and Tissandier, pupils or Wilbur Wright, and Demarest, monoplane; Esnault-Pelterie, monoplane; Gobron, biplane with tail; De Rue, biplane with tail; Ruchomett, biplane; Guffroy, monoplane, and Glenn H. Curtiss who will be the official representative of the Aero Club of America. The nations taking part include France, America, Austria, England and Italy.

On the opening day the French entries will hold an elimination race to select three pilots who will represent the Aero Club of France in the principal event of the week, that of the International Cup of Aviation, which will be contested for on the final day of the meet.

This race is for 20 kilometers (about $12\frac{1}{2}$ miles), and the winner will be the aeroplanist who covers the distance in the shortest time. The race will be run twice around a special course measuring 10 kilometers (about 61/4 miles), but owing to the necessity of making wide sweeps at the turns, the actual distance covered will be considerably in excess of that distance. In addition to the international race, several other distinct events will be held, five for aeroplanes, one for dirigible balloons and one for spherical balloons. The Grand Prix re le Champagne, aggregating \$20,000, will be awarded to the pilot of the aeroplane which has covered the greatest distance without a renewal of fuel or without coming in contact with the ground.

The Grand Prix de Vitesse (speed test), over a distance of 30 kilometers, will be run on August 23 and 29, the prizes of a total amount of \$4,000 to be distributed among the first four competitors. The Prix de Passagers, on August 23, will be awarded to the pilot who has carried the greatest number of passengers a distance of 10 kilometers. As it is possible that several aeroplanists will cover this distance with the same number of passengers, in such case the prize of \$2,000 will be awarded to the pilot among them making the fastest time.

On Sunday, August 29, the Prix de l'Altitude will be contested, the prize of \$2,000 to go to the aviator attaining the greatest height, the method of measurement being a registering barometer carried on the aeroplane. No prize will be awarded for height less than 50 meters, or 165 feet.

For dirigible balloons there is a purse of \$2,000 for five rounds of the course, or 50 kilometers, which may be attempted any day of the meet in daylight. Although the number of dirigibles to compete is yet unknown, the French Minister of War has given assurance that France will send at least one military airship.

The spherical balloon contest will be in the form of a landing competition. The event is open to pilots of the Aero Club of France, and four prizes are offered.

The aerodrome is being arranged on the plain of Bethany, at the portal of the City of Rheims, which, in 1901, was the scene of a military review of 150.000 troops before the Czar of Russia. Seats and stands are being constructed there to accommodate a vast number of spectators.

The task of properly preparing for this imposing aerial meet is naturally stupendous. The first thought has been that of preventing accidents, and a stout barricade has been built around the course, to prevent spectators from invading the aerodrome proper. Numerous aeroplane and balloon sheds have been constructed, and an immense

garage for automobiles is laid out, and a restaurant set up, and for the convenience of the public a special railroad station is building directly behind the grand stands, so that visitors may step from the trains directly to the aerodrome.

German Aviator Nearly Accomplishes a Great Flight

Count Zeppelin nearly succeeded in flying from Frederichshafen, near Berlin, to Cologne, in his new dirigible, the Zeppelin II., last week. Starting at half-past three in the morning he landed in Frankfort at 3 o'clock in the afternoon in the presence of a multitude of people, the number of which was estimated at 100,000. He had covered the 220 miles separating the two places at an average speed of 20 miles an hour, and this despite of adverse winds.

Count Zeppelin, accompanied by Colsmann, manager of his company, left the earth in the moonlight of the early morning. Early as was the hour, several citizens were on hand to wish him well. There was an excellent breeze, and the Zeppelin II. settled down to a good speed the moment she left terra firma.

In exactly one hour and thirty-nine minutes the ship was sailing over Ulm, Wurtemberg, a distance of fifty-six miles. From this point on the trip was marked with bad weather, and at times the ship was actually in danger.

The count himself took the helm, and shortly before 10.30 was able to drop a message to the town of Bietigheim. It took five hours to cover this fifty-eight miles. At times the journey was made in the teeth of a terrifying hail and rain storm which repeatedly veered the great craft from her course.

The count was at work constantly, keeping the air vessel ready for an im-

mediate drop. Repeatedly he wormed his way out through the rigging to clear away the coating made by the hail, but despite slow progress he managed to keep the bow properly headed.

The change in atmospheric conditions made it necessary to drop some ballast. Colsmann gave his attention to this important feature of the trip.

Once, near Gellingen, the storm was so terrific that the balloon for twenty-five minutes had to put up a great fight against the elements. Great gusts of wind lifted her up and then dashed her down. Then counter currents would send her flying half a mile out of her course.

The next morning the start was made for Cologne, 110 miles from Frankfort, but a return to the latter place was necessitated by adverse winds and bad weather. The count went as far as Rollandseck, near Bonn, and within thirty miles of Cologne. There he cruised about for some time trying to make headway against a heavy rainstorm. He was finally forced to give up the attempt to reach Cologne.

The weather was fine until the vessel ran into the storm near Rollandseck. The velocity of the wind was forty miles an hour, and the return up the Rhine with it resulted in the greatest speed ever attained by the airship. The engineers say the machinery worked well, but that the balloon was unable to overcome the force of the furious hail and rain storm.

Two Distance Contests for Brighton Beach

So successful—from a financial standpoint—was last week's 24-hour race at Brighton Beach, that a "two days' speed carnival" is announced for August 27 and 28. Accompanying the announcement is the significant statement relative to a special event for cars costing less than \$2,500:

"The program as arranged by the Technical Committee of the Association provides for competition among cars of all price classes. The public so clearly showed its preference for contests of long duration that two great feature events will be included on the

card. One of these will be a six-hour race for all types of cars up to \$2,500, while the other will be a 24-hour race for all cars selling at \$2,500 or more. By these means it will be possible to judge of both the speed and endurance of all types of cars of whatever cost."

The six-hour race, which will open the program, will be started at 11 o'clock on Friday morning, August 27. The entry fee to this race will be \$75.00, and \$500 will be distributed in prizes, in either cash or plate, the first prize being \$300. The 24-hour race will start at 10 P. M. Friday.

Foreign Cars in Fairmount Park Race

The Quaker City Motor Club, of Philadelphia, has issued the entry blanks and conditions governing the Fairmount Park race, which is scheduled to be held on October 9. It has been decided to allow foreign cars to participate in the Quaker City classic, and such entries will be accepted, provided the cars are owned by American citizens. The rule relating to foreign cars reads as follows on the entry blank:

"22. Eligibility.—Any car, foreign or American, meeting the qualifications as specified in this entry blank is eligible, but foreign cars must be owned by citizens of the United States."

The contest is to be 200 miles, and is for stock chassis that comply with the A. A. A. definition. In order to be eligible, cars must have a motor with a total piston area of ot least 60.60 square inches, which equals a four-cylinder motor of 4½-inch bore. No maximum or minimum weight limit is imposed. No metal anti-skid tread or device of any kind will be premitted. Each entrant will be required to sign a sworn statement that the car entered is a stock chassis. No more than three cars of any one make can be entered. The

entry fee will be \$500 each car, and entries will close October 1. The winner will receive \$2,500, the second prize will be \$1,250, the third prize \$750 and the fourth \$500. The prizes will be paid in either cash or plate, at the option of the winner.

The club has decided that twenty carscan be safely run over the course, and that many entries will be accepted. Already the Park Commissioners have begun to shape up the roads which will be used for the contest, and from now on until the morning of the race there will be a constant laboring on them.

Motor Parkway Gets \$1,000,000 More

William K. Vanderbilt, Jr., representing the Long Island Motor Parkway, Inc., has filed a mortgage on the company's property for \$1,000,000 with the Nassau County Clerk at Mineola to secure an issue of bonds to provide funds for the construction of the remainder of the Parkway. The Motor Parkway corporation proposes to issue \$1,500,000 worth of 4 per cent. bonds to mature May 1, 1934, and the mortgage for \$1,000,000 is to secure that much of the issue.

A Watchful Pennsylvania Club

The Automobile Club of Delaware County Pa., is distributing printed cards which call attention to many apparently unintentional violations of the law by motorists which magistrates have complained of. It urges motorists to avoid these violations by remembering the following rules:

License tags must be "parallel to the axles." Rear tag must be clearly "illuminated" within one hour after sunset.

Both tags must be kept clean, so as to be legible at all times.

Sound horn when overtaking horses, vehicles or persons on highway and

when circumstances require, and at all "Blow" signs. Light two front and one rear lamp before an hour after sunset.

When a trolley car is standing don't pass it on the side passengers can use to get on or off.

Speed. At signs marked "Danger, Run Slow," the legal limit is twelve miles per hour, unless this might be deemed faster than reasonable, having proper regard to width of road, traffic, etc.

Officers. If an officer accosts you, even if he is wrong, don't dispute with him; he can make an additional charge against you for doing so.

Congressman Wants Seven National Highways

A bill was recently introduced in Congress by Representative Maynard, of Virginia, providing for the appropriation of \$1,000,000 for a survey of seven great national highways, including one to be known as the Roosevelt National Roadway. The measure, which also authorizes the President to appoint a national roadway commission, proposes to survey roadways to Portland, Me.; Niagara Falls, N. Y.; Seat-

tle, Wash.; San Francisco, Cal.; San Diego, Cal.; Austin, Tex., and Miami, Fla., all to start from the national capital.

The highways shall have no grade that is more than four per cent., and have shall have a separate roadway in the center for automobiles. They are to be named after Washington, Lincoln, Monroe, Lee, Jefferson, Roosevelt and Grant.

Indianapolis Post Office Employs Automobiles

Indianapolis, Ind., August 3.—The post office here is using three automobiles for the delivery and collection of mail very successfully, according to a report made by Postmaster Robert Bryson. The daily routine is as follows: From 7 to 8 A. M., delivery seventy-five bundles of mail to convenient points on carriers' routes, make thirty deliveries to factories and collect from seventy-three boxes; 10 A. M., make seventy deliveries to factories and business concerns and collect from 168

boxes; 5 P. M., collect mail from 441 boxes. The cars each cover about sixty miles a day.

Bridge Over Susquehanna Nearly Ready

The bridge over the Susquehanna River at Conowingo, Md., which was burned about two years ago, is being rebuilt of steel and is expected to be ready for use about September 1. The bridge is a connecting link in the routes between New York and Washington.

Air Machines for Military Manoeuvres

It is expected that aeronautical apparatus will play an important part in the manœuvres which are to be held on the coast of Massachusetts from August 14 to 21. Both regular troops and militia will take part in these manœuvres, and the signal corps of the army will give instruction in the use of aeroplanes and balloons for scouting purposes and in the manipulation of the wireless systems of communication.

While balloons will be used in the

manœuvres, it is probable that the Wright aeroplane, which has just been acquired by the War Department, will not be risked. Theoretical instructions will be given in its use, however, by the Signal Corps officers who are to be pupils of Wilbur Wright next week.

The manœuvres are to be on a larger scale than any yet held. The troops will be divided into two armies, one of which will attack the coast of Massachusetts and endeavor to repulse the invaders.

British Government Favors Balloons

A dispatch from London states that the sub-committee of the Imperial Defense Committee, appointed to consider matters of aviation, has given a verdict in favor of rigid dirigible balloons for naval purposes and non-rigid balloons for the army. The Aeroplane Committee considers that these machines may possibly become valuable to the army, but says they must be able to ascend to a much greater height than has been

achieved at present before they will be safe for reconnoitering purposes.

War Secretary Haldane announced in the House of Commons recently that in consequence of this report the Admiralty had ordered a rigid dirigible of the largest type from the Vickers, and that the government factory at Aldershot was busy with the construction of three non-rigid balloons and two aeroplanes for experimental purposes.

Automobile Variety Contest for Philadelphia

PHILADELPHIA, August 5.—An automobile variety contest is planned for Point Breeze track on Saturday, August 14. Eight novel events are on the program. The race features will be a fifty-mile event, a ten and two five-mile contests. There will be a mile legal

speed contest, in which the driver must guess at the rate he is traveling, the one running nearest to 24 miles an hour to be the winner. A 25-mile motorcycle race, a gymkhanna and a game of polo in automobiles will complete the program.

Automobile Tariff Remains the Same

There will be no change in the tariff on automobiles, the duty remaining 45 per cent., as it has been from the beginning. The duty was increased to 50 per cent. by the Senate bill, but in conference it was decided to accept the House figures, which made no change in the present tariff.



A. A. A. Tour Awards Arouse a Storm of Protests

With the decision of the Technical Committee, to which was given the task of picking the winners of the Glidden. Hower and Detroit trophies, contested for in the 1909 A. A. A. tour, that eventful competition came to an end. The decision was announced at Kansas City on Sunday, August 1, and immediately a hegira of the officials and the committee began, so that when the competitors got their breaths sufficiently to protest there was no one around to lodge the protests with. That did not prevent their being made, and it was not long before things began to sizzle, so great was the dissatisfaction, but longdistance sizzling is not very effective, and a halt was called until such time as protests could be made and acted upon. The awards, the method of making them and the causes of the indignation are all set forth by an AUTOMOBILE Topics correspondent in the following pages:

Kansas City, Mo., August 1.—After a thorough examination at the hands of the Technical Committee, consisting of Henry Souther, Joseph Tracy and Chester A. Riker, the cars were turned over to their drivers. The following are the final scores, including the technical penalizations:

Glidden Trophy.

Car.	Driver.	Score.
	wW. F. Winchester.	.P'f'ct
	w F. S. Dey	1.0
Premier	H. Hammond	1.5
	Webb Jay	2.3
	H. C. Marmon	6.9
Marmon	F. E. Wing	10.2
Maxwell	E. G. Gager	13.1
	E. O. Hayes	33.9
Jewell	O. P. Bernhardt	40.6
	H. N. Searles	45.2
Glide	A.Y. Bartholomew	688.o
Thomas	G. G. Busse*	0.1001
Chalmers-De	troit W. Bolger*	1225.5
*Withdrawn.		

Hower Trophy.

	• •	
Car.	Driver.	Score.
Pierce-Arrow	J. S. Williams	P'f'ct
Moline	J. A. Wicke	I.I
Lexington	J. C. Moore	. 3.8
Moline	C II Was down	, ,,
Moline	C. H. vandervoor	t. 8.3
Pierce-Arrow	C. Schofield	. 10.2
Maxwell	C. E. Goldthwaite	42.0
Moline	W. S. Gregory	49.4
Jewell	I. F. Shimp	יייער יי
Mason	Don Smuder	. 107.5
D .	Koy Snyder	344-4
Brush	F. A. Trinkle	*1005.6
Hupmobile	F. Steinman	*1358.0
McIntyre	F. Goodwin	*14527
Brush	D B Huse	*2257 6
Chalmers Detroit	I Machaelas Dia	2251.0
Chalmers-Detroit	J. Macnesky.Disq	uaiihed
*Withdrawn.		

Detroit Trophy.

Car.	Driver.	Score.
Chalmers-Det:	roit Jean Bemb	14.2
Premier	C. Waltman	34.3
AmerSimple:	KW. A. Wood	49.4

All day long up to I A. M., the Technical and Contest boards labored like beavers at the Auditorium, going through the mud-covered cars with fine tooth combs. Some idea of the ordeal that the contestants had to go through for the first time in touring history, may be gained by glancing at this outline of the inspection to which each car was subjected.

Engine.—Bonnet, lubricator, bearings, fan, radiator, valves, push-rods, filywheel, gears, water-pump, oil-pump, commutator, starting-crank.

Wheels.—Bearings, hubs, pivots, spokes, rims, alignment.

Clutch.—Behavior, condition, condition details.

Chassis.—Main frame, sub-frame, axles, springs, spring-clips, brakes.

Steering.—Column, wheel, rods, joints. Transmission.—Gears, levers, differential, bevel-gears, chains, propeller-joints.

General.—Gasolene tank, gasolene line, bolts and nuts.

In the afternoon the deferred penalty on Premier, No. 53, of July 29, was given out as 5 points, divided between labor and material. In the evening a correction was made on the American Simplex score of the previous day, the 4 full points being wiped out, as the observer did not record 20 minutes spent in changing tires while the engine was running.

The Premier No. 53 was taxed 20 3 for July 30, on spring materials and labor, and the Glide on July 29, 276 points, of which 212 were for tardiness. A correction was also made on the Mason's penalty of July 28 to a total of 330.2, of which 296 was for tardiness.

Kansas City, Mo., August 1.—The committee resumed investigation about 8 o'clock this morning and completed their hall work about 3 o'clock, practically all the cars being taken to garages for the night. Some will be shipped to-morrow and the others run to their homes. The tourists began to leave yesterday, and it appears that only a handful will be left here by to-morrow noon.

The scores are the united totals of the run itself and the mechanical examination. The latter was a new feature, which, added to the lengthened tour of 1,000 miles this year, dwarfed the previous tests into insignificance.

The only two clear scores were Pierce-Arrows, the touring car, No. 9, driven by W. F. Winchester, taking the Glidden trophy, and the runabout, No. 108, driven by J. S. Williams, the Hower prize. In view of the tie decision in favor of the Pierce last season, that concern being located in Buffalo, which is also Chairman Hower's home, every eye was on those cars and much criticism was leveled against the perfect scores credited all four of them at the end of the run.

Two of them, however, were penalized in the technical examination. According to the Technical Committee there was nothing patent on the other two to which exception could be taken. From the middle of the tour rival en-

trants promised to bring testimony of irregularities on the part of several perfect and imperfect score cars. The murmuring became so loud that Chairman Hower finally asked for evidence, but no one responded. The fact is, nearly everybody considered a few of the rules unfair and did a little juggling with their cars.

They may, therefore, have been afraid of counter testimony. For instances, stakes, covered with grease, which had been used to straighten out bent pans, involving a penalty, were found thrown into high grass along the road. These stakes were shown to disinterested part es, as no such penalizations had been recorded. Because of the refusal of those who knew of violations of the rule, there was at first a disposition >on the part of the motorists here to blame them rather than the committees. The kickers soon rallied, however, and put in their protest, which they asserted could not have properly been presented before.

Mr. Hower at the final meeting naturally took pains to emphasize the fact that a car making anything like a perfect score in such a strenuous test was worthy of high praise.

Kansas City, Mo., August 2.—
"There will never be another tour as such." This was the consensus of opinion in the corridors of the Coates House this morning, after the participants in the 1909 American Automobile Association tour had slept over the matter of awards and protests. More than half the motorists had left this city, but many representative men remain, so their notions might carry weight.

The representatives of the American Automobile Association lost no time last night, leaving for the East the minute the awards were made, so the protests made by several concerns had

Automobile Topics Tour

Broadway and 52nd Street

New York City

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Demonstrations by Appointment

Touring Car, Quinby body, 50 h. p., 4 cyl., \$3,250 (Original cost was \$5,650) Touring Car, Moore-Munger body, 35 h.p., 4 cyl., \$2,250 (Original cost was \$4,650)

Touring Car, Springfield body, 60 h.p., 4 cyl., \$4,000 Demi-Limousine, Quinby body, 50 h. p., 4 cyl., \$3,500 (Original cost was \$6,500) (Original cost was \$7,500)

The above cars are fully equipped with tops, slip covers, lamps, gas tanks, tire carriers, baggage racks, foot rails, coat rails, spare parts, &c., and have in every way the appearance and mechanical excellence of brand new cars. They are almost duplicates of our 1910 models.

Matheson cars never get in a really second-hand condition. For the past three years the average repair expense per each Matheson car per 12,840 miles traveled has been only \$36.41. This means mechanical superiority and quality, quality. After we rebuild a Matheson car we guarantee it exactly the same as a new car. You may buy a used Matheson, rebuilt by us, with confidence that it will give you the same term of perfect service as a new car. We do not know of any other car of which this can be said.

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1909 A. A. A. TOUR

Section 4—Minneapolis to Fort Dodge

Through Minnesota and Iowa this week's installment of the A. A. (Glidden) tour proceeds. Natural roads are encountered, but the going is good in the main except during a rainy season. The details follow:

Leaving Plaza on Hennepin Ave.; right on S. Eighth St.; left, Nicollet Ave. Cross Mississippi; along Central Ave.; right on University Ave. Cross bridge; turn right to Minnesota University grounds. Left, fork; right, Pleasant St. Cross bridge; right, Washington St.; left, Riverside drive; right over Franklin Ave. bridge; cross-road right, Cleveland Ave.; left,; Summit Ave. Over R. R. bridge; right to St. Paul (9.5 miles).

Right, Oakland Ave.; right, Smith Ave. Cross bridge over river; on Smith Ave. End of road, right; fork, right; fork, right; direct to Westcott; cross-road, right; next cross-road, right; through Rosemount. At three roads, extreme left; 34.1 miles, turn right; cross-road, left; one block beyond, right; left one block further. One block; turn right into Farmington; left turn, one block; end of road, right; turn left; end of road, right; turn left; end of road, left; end of road, right; end of road, right; end of road, left. Over R. R.; curve right; left. At Mill, turn left; bear right on Division St. of Northfield. At cross-road, turn right; left on Poplar St.; end of road, right; right at corner, after graveyard; left after R. R. crossing; through Dundas; at fork, right; cross-road, left; at fork, right; end of road, left, and at fork just beyond, go right; end of road, right; end of road, right; fork, left. Left at stone church; two blocks, right. Through Fairbault (64.3 miles).

Left at cross-road; fork, right; fork after R. R., go left; fork, right; end of road, right. Turn left into Medford. End of road, right, into Clinton Falls; end of road, left; fork, left. Over bridge; right on Oak St.; one block and left; one block and right on Cedar St.; right on Broadway,

Owatonna (80.7 miles).

End of road, left; right on Bridge St.; end of road, right; end of road, left; right at Meriden; end of road, right; end of road, left; end of road, right; fork, right; end of road, left; fork, left on Elm St.; cross-road, right. In Waseca, left on "C" St. Fork, right; fork, left; cross-road,

right; cross-road, left; fork, right; end of road, left; fork, right; end of road, left; fork, right; end of road, left; end of road, right, to Elysian; cross-road left; right after R. R. To Greenland. End of road, left; end of road, right; fork, right; left; cross-road, left to

Madison Lake (119.6 miles).

End of road, right; cross-road, right. Through Eagle Lake. End of Madison St.; left on Fourth St.; right on Vine St.; left on Broad St.; left on Jackson St.; right on Front St. to Saulpaugh Hotel,

Mankato (132 miles).

South on Front St.; fork, left; over bridge. At end of cemetery, turn left; end of road, right; fork, right; end of road, left; cross-road, right, to Garden City. Right at cross-road; left at cross-road; fork, right; end of road, left. Through Vernon Center. End of road, right, to Amboy. Pass cross-road; turn right; turn left to

Winnebango (167 miles).

Fork, left; fork, right; turn left; to Blue Earth; turn left; two blocks, right; one block, left; cross-road, right; end of road, left. Through Elmore. Cross-road, right; one block, left. To

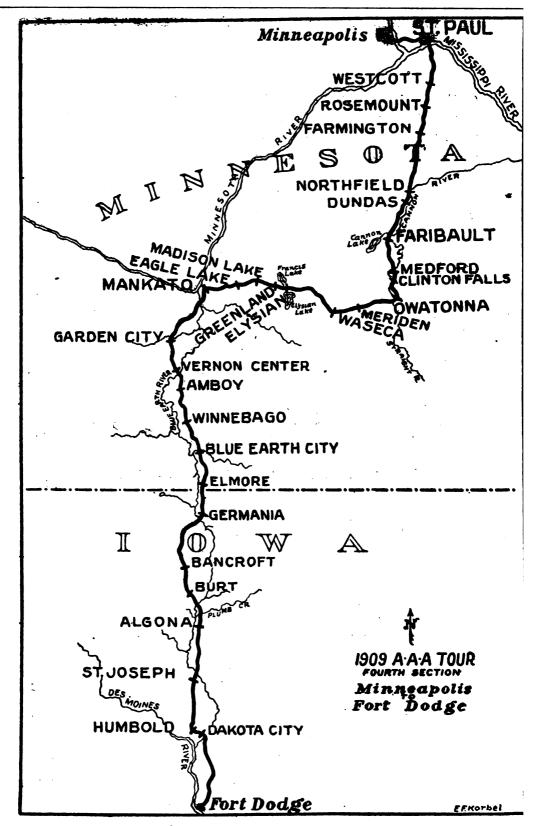
Germania (195.9 miles).

Cross-road, right; two blocks, left; end of road, right; end of road, left; cross-road, right; end of road, right; first turn, left. To Bancroft. Cross-road, left; end of town, left. Throught Burt. Turn right; end of road, left; right after bridges. To Algona (225.6 miles).

Cross-road, right; turn left; over river; fork, left; end of road, right; end of road, left; end of road, right; end of road, left; end of road, right, end of road, left; end of road, right, to St. Joseph. Direct to 251.4, where curve left, right, left, right, left, right, to Humboldt (152.4 miles).

Through Dakato City. Cross river; end of road, right; end of road, left; turn right; end of road, right; end of street, left; right on Central Ave.; left at Park to Crawford Hotel,

Fort Dodge (270.6 miles).



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Mention "Automobile Topies" when writing.

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to be sent to Buffalo by wire, including the monetary deposit. Chairman Hower, before he read the scores decided upon, took pains to give notice that as soon as he finished his task his part in the meeting was over. In other words, he was determined to avoid argument or explanation of any kind.

It seems quite likely that other protests will be filed in good faith and not "for the purpose of free advertising," as one Buffalonian on his way home wired back this morning. The feeling here is, however, that the protests will not be sustained by the Contest Board, although the rank and file of tourists balieve they are thoroughly just. Auto-MOBILE TOPICS correspondent had a chat with H. O. Smith, president of the Premier Motor Car Company last night, just as he was leaving for Indianapolis, Mr. Smith said that the driver of the winning Pierce touring car took the rear lamp off his vehicle soon after the accident in which the other Pierce touring car lost its tool box and lamp.

He further alleges that when the perfect score car reached this city, it did not have its rear lamp, but that it was put on prior to inspection. Mr. Smith stands ready to subpœna several witnesses before the board when his protest is heard. That the board was careful in enforcing the lamp provision with some of the entrants, at least, is declared by W. H. Vandervoort, president of the Moline Motor Car Company. He says that the street test, following the inside examination at the Auditorium, he was obliged to light up to show that his lamps were in good working order. It is insisted that the rear lamps of the Pierce roadster were smashed early in the tour, but no penalty was imposed therefore. The liveliest sort of a row is assured following the protests.

It is an open secret that while there

is no apparent warfare between Messrs. Glidden and Hower, the latter was not pleased by the prominence Glidden received, for the spot light was not large enough for two. Mr. Glidden was "it" with the general public, if not with the One way out of this year's tourists. mess, following the wrangle of 1908, would be for Mr. Glidden to dispose of his trophy permanently. It would be quite useless to attempt another Glidden tour under anything like the old condi-The only thing to do is to secure a new list of officials who are strangers to the old animosities. Even among manufacturers and others most unfriendly to Mr. Hower there is a feeling that a big national tour is indispensable and that it should not be allowed to lapse even for one season. Its value was never better demonstrated than this year.

Whatever blunders Frank Hower has made he will get lasting credit for putting through the greatest tour to date in American automobile history, and this against considerable opposition. Think for a minute of the striking details. It started from Detroit, which city, with its tributary territory, is the greatest automobile manufacturing center in America. Even Minneapolis was visited, which has more automobile users than any city west of Chicago, except Los Angeles. Next came Denver, a great automobile place, with its high altitude to put carburetters, etc., to the test. And lastly Kansas City, just over the lowlands line in the State of Missouri, where people "must he shown." If you don't believe it you ought to have watched the smelling committee in operation at the Auditorium.

Incidentally, such important automobile centers as Jackson, Mich.; South Bend, Ind.; Chicago, Ill.; Milwaukee, Wis.; St. Paul, Minn.; Council Bluffs,

Ia., and Omaha, Neb., were passed through or stopped at. Not even a transcontinental tour could beat that. Just two undeveloped fields remain for tours and both are likely to be exploited within three or four years, even if it is necessary to arrange a brand new endurance exhibition to do it. One is the Gulf States to New Orleans and The climate there, however, Texas. would demand a fall run, when motorists generally cannot spare the time. The other is a trip to the Pacific Slope.

That Denver may be easily reached cannot longer be denied, nor do the Rockies present any great obstacle, except that of time. The territory hundreds of miles beyond, however, would prove full of delay and worriment for an endurance run.

Hard as it was to chase hotels early in the trip, that was as nothing to the cramped quarters in the private train, during the hot weather and the insect period. Many quit the train to take pot luck at uncertain hotels. Shower baths would have to be carried along on a transcontinental trip, while more commodious living quarters might be rigged in baggage cars. This year's Glidden tour was an experience never to be forgotten, and while few, if any, regret having made the trip, no one would think of enduring such hardships again.

Kansas City, Mo., July 31.—Practically all of the Gliddenites were so up to their eyes in work to-day that few of them got time to take a ride over this city's boulevards as guests of the local automobile club in the morning, followed by a Dutch lunch at the Elm Ridge Club, formerly the home of a jockey club. The track is now used mostly for other sorts of speed. The piazza of the clubhouse, where the luncheon was served, overlooks the track and charming scenery as well.

The automobile races were spiritedly contested.

In the afternoon a few of the travelers went to Electric Park, the Coney Island of Kansas City, and had a pop at folly as it flew. There was also a Dutch lunch at the park during the evening. The Board of Trade and seven clubs opened their doors to the visitors.

Salina, Kan., July 29.—Without exception the run from Oakley to this city was the warmest of the entire series. The mercury ranged from 98 to 101 degrees, the wind, even with the cars traveling from 23 to 55 miles an hour, seemed to come off a furnace. Aboard the train everyone suffered intensely. The roads on the journey of 200 miles were much better than expected, how-The first place of interest was twenty-eight miles out of Oakley, Buffalo Park, where "Buffalo Bill" Cody first gained his reputation. The next twenty miles brought three bad sink holes that would have caused trouble had it not been possible to make a detour by swinging out into the wheat fields. Ellis was run through, 77 miles out, that being the place where the time zone changes.

After something more than a hundred miles of prairie had been traversed the country became more rolling. The only sidable place passed through the entire day, however, was Ellsworth. The farmers in that neighborhood showed their good will by dragging the road, some of them being caught in the act by the motorists. The Salina club made a hit by opening a conveniently located swimming pool to the swelterers. Salina is the dryest town encountered, but, upstairs in the hostelry, there was a bath tub filled with bottled beer, concealed by a layer of ice.

The penalties announced to-night were, Jewell, No. 3, 2.06 points for

labor and material in repairing a gasolene feed pipe; Jewell No. 7, 2.3 points for repairing a fan belt (incurred July 24); Glide, 247 points, of which 215 were for tardiness (incurred July 29); Mason, 353.2 points, of which 296 were for tardiness; White (kerosene), .04 for rewinding a mud guard.

Kansas City, Mo., July 30.—The final day's run, the trip of 214 miles between Salina and this city, made nearly all of the previous jaunts seem like boy's play. It was the longest as well as the hardest. The trouble came about largely through the heavy rains that soaked Kansas last night, but in addition there was more hill climbing than on any other day, although the climbing was not as long as on the memorable day through Wisconsin.

It was showering just before the start was made, but a rainbow put heart into the tourists, who had been routed out of bed an hour earlier than usual only to have the chairman put the start back to 7 A. M., as usual. As the cars were being sent off another smart shower fell, so rubber coats were donned and chains put on. The suburbs had scarcely been left behind when it stopped raining. Gumbo was encountered at the start for about the first time in any great quantity since Iowa was left behind, and with the exception of a little sand it was gumbo all the way.

Abilene and Junction City were the first of the larger places passed through, the latter place having a lively automobile club that had placarded the danger curves for miles on each side of the city. There was great interest just beyond, in Fort Riley, the largest cavalry post in the world. Within the fort, which stretches about twenty miles, lies the geographical center of the United States.

The gumbo began to stick the harder, being softer from more rain, the far-

ther the motorists went. Ogden, the oldest town in the State, lay beyond and close by the original capital of Kansas, back in 1855, when it was a territory. The building is now roofless. Seventy-two miles out of Salina, in Manhattan, came the first real railroad hold-up the tourists had met on the entire trip from Detroit. A switching freight train delayed a half dozen cars almost half an hour before a cut was made. This was in striking contrast to the spirit of accommodation that the other railroad gangs showed.

As Topeka, 133 miles out of Salina, was approached the gumbo mud deepened to a foot in most places, and the cars were soon thoroughly plastered. The next large place was thirty miles beyond Lawrence, famed for its antislavery riots in the days of the Kansas-Nebraska bill. In that city, the Midland, which had been cutting a great pace in the lead, despite a long delay over the freight train at Manhattan, burst a tire by striking heavily against a gigantic stone, covering a The stone was moved almost two feet. This tire delay was the only thing that prevented E. O. Hayes from bringing the car into this city in the lead of the tour. While the replacement was being made the Midland was passed by three contestants. drove on, however, at a whirlwind speed and was beaten only by the Pierce-Arrows.

Everyone was so worn out by the exhausting day that very few dropped into the smoker given by the Kansas City Automobile Club. The penalties announced this evening were: American Simplex, tardiness, 4 points; Maxwell No. 107, 23.5, 21 points being for tardiness; Jewell No. 111, 5 points for labor and material; Lexington, labor, 2; White (kerosene), 7, labor and material; Moline No. 102, 29.5 points, 16 for tardiness.

President Witnesses Start of Pathfinding Car

Washington, D. C., July 31.—While hundreds of motorists, prominent government officials and business men cheered lustily the pathfinders who will lay out the route for the Frank A. Munsey reliability contest from Washington to Boston and return, September 21 to 29, left the national capital yesterday morning. The route to Boston will be via Baltimore, Philadelphia, Delaware Water Gap, Albany and Springfield. The return route has not been decided upon, but will include New York City as one of the night stops.

The scouts were received by President Taft on July 29. The President was much interested in their prospective journey and wished them all kinds of good luck.

Charles J. Glidden has set the seal of his approval on the Munsey tour. In a telegram to the managers, dated Hugo, Colo., July 30, Mr. Glidden said in part:

"I wish to extend my congratulations to Mr. Munsey in arranging a tour of this character, which will be of unusual public interest, giving the people of the Eastern States an opportunity of witnessing a splendid contest between cars under conditions which will be an admirable test of drivers' skill and manufacturers' product. You are sure to have a large number of entries and can expect some from this tour after its finish in Kansas City. The success of the Munsey tour is assured."

The following entries have been received for the Munsey tour: mers-Detroit Company, Chalmers-Detroit; Hudson Motor Company, Hudson; Olds Motor Works, through Philadelphia branch, 6-cylinder Oldsmobile; Baltimore Branch Olds Motor 4-cylinder Oldsmobile; Sinclair-Scott Company, Baltimore, Md., Maryland; Carter Motor Car Corporation, Washington, D. C., Washington; Lambert Automobile Company, Baltimore, Md., Maxwell; Charles E. Miller & Bro., Washington, Ford; Walter Cram, Philadelphia, Mitchell; F. W. Eveland, Philadelphia, Stevens-Duryea; The Motor Company, Philadelphia, Premier; Jackson Automobile Company, New York branch, Jackson.

An Enjoyable Trip to Mexico

A party of Californians, consisting of Mr. and Mrs. C. J. Matthews and F. M. Newbert, have just completed a very interesting and enjoyable trip to the southern part of the State and to Mexico.

They left Sacramento on July 4 in a Chalmers-Detroit "30," carrying 200 pounds of luggage. Taking the Coast Road to Los Angeles, they visited Del Monte and the other places of interest along the way. A week was spent at Los Angeles, where they attended the Elk's celebration, after which they drove to San Diego, and as a matter of course took the run to Tia Junna, Mexico, to see a bull fight. The latter,

however, they report as not being much of a success, for the bulls would not fight. The car was shipped back to San Francisco, and the party will leave there shortly for a hunting trip in the northern part of the State, visiting Bell Springs, Highland Springs and other resorts.

Mr. Newbert, in speaking of the trip, was very enthusiastic over the performance of the car, which added so much to the enjoyment of all. This was one of the first 1909 models delivered on this coast, and in the year's time has traveled almost 10,000 miles without a mishap and with the original Diamond tires

Altitude as Affected by Courage

The subject of the proper altitude for aeroplanes under varying conditions, and the part that is played in the matter by the courage, or nerve, of the aviator, was discussed interestingly and at some length by Glenn H. Curtis, Wednesday, just prior to his sailing for France, where he is to take part in the aviation contests at Rheims. His attention was called to the tendency of most aviators to keep close to the ground, and the necessity of going much higher. If aeroplanes are to be for military purposes, the future scouting ships of aerial war fleets, it is clear that they must be able to remain at a considerable elevation in order to be immune from the powerful guns now being especially constructed for the purpose of crippling them, it was suggested.

"There are only two things at present which are retarding long-continued high flights by aeroplanes—first the nerve of the operator, and, second, the fear that the motor will suddenly stop or develop other troubles that might make a quick descent from a high elevation dangerous," was the reply.

"The man in the street, of course, now that aeroplanes have demonstrated their ability to fly, is eager to see big re sults, yet the most casual observer must have noticed that, in view of the troubles the Wright brothers had with their motor at Fort Meyer a month ago and the misfortunes that evertook Latham in his two efforts to cross the English Channel, the aeroplane motor is still in its experimental stage. It is not the fear of meeting troublesome cross-currents of air in the higher regions that retards high flying. Almost too much, it may be said, is now asked of the aeroplane motor. It has been lightened and simplified to the last possible degree by the elimination of as many parts as possible from the heavier and reliable motor as used in automobiles, and yet it is required to show an equally high degree of efficiency. In higher altitudes there is always fear that the carburetter may go wrong, causing an imperfect mixture in the proper combination of air and gas, and this may result in such a diminution of speed as to cause the machine to fall."

"With the motor shut off at a high elevation," said A. M. Herring, who was also present, "it is a case of gliding successfully to the earth, and there have been no opportunities yet to try successful gliding from great heights. Orville. Wright, it is true, shut off his motor when nearly 200 feet in the air and glided easily to the ground, and Latham, in both of his Channel misfortunes, came down with tolerable ease from greater heights, being reported in his first fall at over 400 feet. These cases illustrate the nerve of the operator, but few aviators care to take such chances willingly. Moreover, at present there is no incentive to rise high.

"With the development of the aeroplane along more practical lines in the future the average flying height will probably be from 500 to 700 feet. At a height of about 1,000 feet an aeroplane, if not exactly out of range of artillery, will present so small a sighting object, while at the same time moving so rapidly, that it would not be hit once in a thousand times. We are still in the experimental stage of flying, but with the constant improvements, the gradual perfection of the motor, and the increasing confidence of trained aviators, there will not be the slightest difficulty in rising several hundred feet and maintaining long flights."

The non-reliability of the light aerial motors stands as the barrier to the practical utility of the heavier-than-air machines. Some aviators think that the

problem may be solved by discovering a metal or combination of metals that will give the minimum of weight with the maximum of safety. Mr. Herring has done considerable experimenting along this line, and over a year ago he discovered a secret combination from which he built an exceptionally light motor averaging but one pound to the horse-power. He is not using this motor, however, in his new machine, which will be tested with a few days over the Hempstead Plains preparatory to taking it to Fort Meyer for the government flights.

Instead, Mr. Herring will use the Curtiss motor, one of the lightest practical motors ever built, the 25 hp.

engine used in the Curtiss machine in the flights at Mineola weighing about 9c pounds, including the radiator, magneto and all other parts.

The Wright brothers, on the contrary, have leaned to the other solution of the problem, toward the development of the aeroplane on such lines as will enable it to carry not the lightest possible motor, but a heavier one, with all its parts intact, therefore giving greater possibilities of assured reliability. While the present Curtiss, or to be exact, the Herring-Curtiss, machine weighs, ready for flight, but 400 pounds or 550 with the operator, the Wright machine weighs twice as much, from 1,000 to 1,200 pounds.

No French Salon This Year

There will be no French automobile show, or salon, this year. A definite decision to this effect was reached at a meeting of the Chambres Syndicales, l'Automobile Club de France, held June 30. In consequence an official commu-

nication has been sent out stating that it has been decided to suppress the 1909 salon and to hold the twelfth Exposition Internationale de l'Automobile, de l'Aeronautique, du Cycle et des Sports in 1910.

Night in The Garage

A light or two reveals the shadowed forms
Of silent cars. A quiet haven here,
That brings them freedom from their
wonted storms
And rests the erstwhile throb of running
gear.

There stands the winner of a racing prize. But yesternoon it was a thing of life; With almost human heart it strove to rise Before its fellows in the heated strife.

It makes no motion now, nor yet a sound, But stands as silent as a graven stone. The others, too, its brethren in the round, Are still as when the night comes to its own.

Here comes a straggler. Tired and worn as he

Who greets the morning, having roystered long.

It seeks its resting place and soon will be A silent singer of its slumber song.

-Hugo Von Hauck.

PREVENTIVES AND REMEDIES

A worry that occasionally occurs with all cars, especially if they be old ones, is loss of power. As in medical matters, so in automobile maladies, the cause is best arrived at by a process of exclusion, and the investigation can be carried out under four main lines: (a) Compression, (b) mixture. (c) ignition and (d) cooling. (a) With engine on full compression, pull starting handle round, and if the compression be defective, it will at once be detected. If so, examine inlet and exhaust valves: if pitted, grind them in, and see that stems and tappets have sufficient clearance. If the valves be healthy and the combustion head not cast solid with the cylinder, see if that joint be gastight. Placing a little soap and water or oil round the joint and running the engine will by the presence of bubbles show whether the fault be there, and if so the joint must be made tight. If the piston rings be worn or the cylinder has become oval, new rings may be needed or the cylinder may require lapping. The latter work had better be given out. (b) Too rich or too poor a mixture may cause loss of power. Examine carburetter, and see that the needle valve closes, that the gauzes at the air intake and where the gasolene pipe enters the float chamber are not blocked, and that the jet is clear. If these parts are all right, the fault may still be to a certain extent due to the mixture, or rather to the want of it. In engines with automatic inlet valves, the spring may be too stiff, and thus the valve will only open late, and so a not sufficient charge be admitted. Slack back the spring or cut off a coil of it. (c) A poor spark may cause a poor explosion, and so loss of power. Examine accumulators to see that they give at least four volts. See that all the electric contacts are good, especially at the commutator; also that the platinum points of the coil trembler or at the commutator in a make and break type are neither pitted nor sooted; if they be, dress them with a file, and in the former case adjust so that the tumbler gives a good buzz. In case of magneto ignition, see that the platinum points and sparking plugs are clean. (d) Imperfect water circulation, by allowing overheating. is often the cause. See that the pump works and delivers, that the pipes are free, that there is no air lock, and that the cylinder jacket is not furred up. Using only distilled water will obviate the last named trouble. In friction driven pumps see that the friction wheel presses against the flywheel, and that it has not slipped off the feather which keys it to the splindle.

The cutting of tires by the rims is generally caused either by overloading or lack of sufficient inflation. If the tires are called upon to carry a greater load than their dimensions are caluculated to bear, no amount of inflation will keep them from flattening under the excessive load. This invariably results in the cracking and breaking down of the cover at its weakest point-where the flange engages the beaded edge. Rusty rims are also to be avoided, and they should be occasionally gone over and cleaned of any rust that may have accumulated. A coat or two of enamel will often prevent further corrosion, or the rims may be given a coat of wax. This is a satisfactory way of treating the rusty rims of an old car. To make a thorough job, the metal should be well scraped and sandpapered. The wax (preferably beeswax) should be heated and applied in a liquid state. The wax will not injure the rubber, and by keeping out the air prevents further rusting of the metal. The surface of the rim which comes in contact with the inner tube should be smooth. If rough, it is likely to wear and damage the tube, in which case the rim should be wrapped with a layer or two of tape, the loose ends being solutioned in place.

If your oil lamps go out frequently while running, it may be owing to the draught holes in the top being choked up by heavy deposits of carbon.

Any small leak which appears in connection with the water circulation should be repaired as promptly as possible, for it quickly grows to a large one, which is much harder to repair. Nothing looks worse than to see a pool of water under a car which has been standing for some time.

C L U B S

Lots of good work on the roads around Philadelphia is being done by the Automobile Club of Philadelphia. A forty-foot three-inch main is being placed under the road at Coal Point, on the Plymouth Pike, on the main line near Ambler. other point of the road the township authorities are placing another main at the expense of the automobile club. Troy toll road, from the city line to Janney's Station, on the Philadelphia and New York road, and seven miles of the Lancaster Pike, between Sedgewick Village and the Gap, are being gone over with King's log road drag. Signs are being placed on the roads in lower Merion townshipship. The route maps to Ocean Grove and the Philadelphia and Coatesville sections are now out.

The Quaker City Motor Club of Philadelphia has awarded a solid gold medal to Frank Hardart, Jr., for his excellent showing in the recent Pittsburg endurance run.

The Hinds County Good Roads and Automobile Club has been formed by the motorists of Jackson, Miss... and nearby towns. The organization will not be limited to automobile owners, but efforts will be made to secure as members all users of the highways. Road improvement will be the paramount object of the club, and an active campaign will be inaugurated at once. Officers have been elected as follows. Eugene Simpson, president; R. S. Withers, vice-president; W. D. McRaven, secretary. A committee composed of R. S. Withers, J. C. Landen and Mason Birdsong has been appointed to outline and put in force a membership campaign.

The Automobile Club of Allegany County. Md., has been formed with fifty charter members, and officers as follows: H. H. Amack, president, and W. C. Devesmon, secretary.

The committee of the New Jersey Automobile and Motor Club, which has charge of the road tests that are to be conducted in Essex County, has decided not to make any formal announcement of the date on

which the tests are to be held. decision was reached with the end in view of leaving the committee unhampered in its work, as it was thought that a public announcement would simply bring an endless train of motorists who would not only interfere with the tests but would bother the committee with questions. The exact date will only be known to the members of the committee and representatives of the press, and to County Engineer Owens. under whose direction the tests will be held. The plans call for the selection of a stretch of road in Essex County, preferably one with a turn, over which light and heavy cars will be run at varying speeds and the effect on the roadbed noted. Photographs are to be taken both before and immediately after each test, with the view of ascertaining the amount of dust raised by the different cars, and data collected showing the disintegration of the roadbed under the different stresses of running cars under high speed and of stopping them suddenly in their travels. It is possible that the tests will be made on different kinds of roadways, including those that have been treated with road oils and others with untreated surfaces.

A banquet was given last week by the Trumbull (O.) Automobile Club. The affair was a very enjoyable one, and was attended by more than one hundred.

The Springfield (Mo.) Automobile Club has been reorganized with the following officers: W. H. Harine, president; J. E. Atkinson, secretary.

The Columbus (O.) Automobile Club has appointed Frank Lawwell, a former Vanderbilt race driver, as a special officer, to see that the State automobile law is enforced in Columbus.

The St. Louis (Mo.) Automobile Club has issued a letter asking all members of the club to co-operate to make the motor car display to be given the first week in October, when St. Louis celebrated her centennial birthday anniversary, a successful affair.

The Tacoma (Wash.) Automobile Association was recently organized.

AUTOMOBILE SPORTS

Washington (D. C.) motorists are looking forward with interest to the floral automobile parade which is scheduled to be held in that city on September 30, under the auspices of the Chamber of Commerce. Among the judges of the parade will be Governor Crothers, of Maryland. Secretary of War Dickinson was asked to act as a judge, but he was unable to accept. The Chamber of Commerce has decided to request the authorities of the district to rope off the avenue on the evening of the parade to insure against crowding and to allow the cars a chance for display. A tentative route has been proposed, starting at the District Building, proceeding east to the Peace Monument, at 1st Street West, and doubling back up the avenue to 17th Street, past the White House; thence into the speedway. A large list of prizes are to be offered, and it is expected that over 300 cars will compete for them.

A three-days' reliability trial, to be held from August 12 to 15, is being organized by the Mid-German Automobile Club.

The first of a series of roadability contests which will be held by the Motor Club of Harrisburg, Pa., during the remainder of the summer, took place July 31, in a run of fifty-three miles to Mt. Holly Springs and return. Sixteen of twenty-two entrants started, and all but one finished. The run was made on a secret time schedule, five different schedules between fourteen and seventeen miles being selected, and upon the return Mayor Meals drew the envelope calling for the official schedule, which was 141/2 miles an hour, or 3 hours 22 minutes and 28 seconds for the entire run. First place went to a Reo, driven by S. E. Keeney, with a running time of 3.40.25; second place to a Maxwell, driven by S. H. Bomgardner. with a time of 3.32.38; and third to an Oldsmobile driven by Joseph Pomraining, with a running time of 3.31.08. The cars left Harrisburg starting at 10 o'clock in the morning, and departing at two minute intervals, Mt. Holly was reached by all the contestants shortly after I o'clock, and a three-hour layover was accorded for lunch. Returning, the contestants left Mt. Holly at 4 o'clock in the same order as the start, the last car checking in at the Motor Club headquarters shortly after 6 o'clock.

A crowd of about eight thousand persons, including a number of the participants in the Glidden Tour, attended the race meet at the Elm Ridge race track, in Kansas City, Mo., on Saturday, July 31. The races were part of the entertainment tendered the 1909 A. A. A. tourists by Kansas City motorists, and all of the events were interesting affairs. Robert Burman in a Buick made a clean sweep of the events, winning all he entered. The principal event on the programme, the 100-mile endurance race, was won by him in 1.54.08. Second place was also taken by a Buick. This car was driven by G. M. Breed, and finished six miles behind the winner. Third was a Great Western driven by O. F. Snicler. Burman also won the five and ten-mile events, while Mrs. W. S. Hathaway, in a Detroit Electric, won the obstacle race for women in electric cars.

Four days of automobile and motor cycle racing are to be conducted in connection with the San Antonio (Tex.) International Fair, which is scheduled for November 6 to 17. The automobile contests will be held under the direction of the San Antonio Automobile Club.

The scout car for the Munsey reliability run from Washington to Boston and return on September 21 to 29, left Washington, D. C., on Friday, July 30, to map out the route. The car, a Chalmers-Detroit, driven by Carl Schnoor, was started from the national capital by W. D. West, ppresident of the Washington Automobile Club, assisted by I. Gans, chairman of the Chamber of Commerce. The contestants will have to travel about 1.500 miles in the Washington to Boston and return trip. The route will include Philadelphia, Milford, Pa.; Albany, Boston, New York, Atlantic City, and Baltimore.

The Motor Racing Association has decided to hold another twenty-four-hour automobile race at the Brighton Beach Motordrome, on Friday and Saturday, August 27 and 28.

HIGHWAYS

Good roads enthusiasm has taken hold of the inhabitants of the Southern States in a surprising manner, and there is scarcely a county or town which is not showing particular interest in the improvement of the highways in its immediate vicinity. Banks and Jackson Counties, Ga., started a campaign for road improvement last week, when they conducted an enthusiastic meting at Maysville. The feature of the meeting was the address by Dr. L. G. Hardman, representative from Jackson County, in which he urged the establishment of a State Highway Commission and the enactment of laws which will give counties the right of eminent domain when seeking rights of way for public roads. Dr. Hardman was the author of the bill which required that Jackson County's road superintendent should be a practical engineer, and he takes pardonable pride in being one of the pioneer advocates of good roads in Georgia. Dr. Hardman also expressed his approval of the bill to place a small tax on automobiles, with the provision that all moneys derived from this source should be used for the support of the State Highway Commission. Mayor T. R. Carr presided at the meeting and introduced Colonel R. T. Camp, a prominet young attorney, who in a graceful address welcomed the visitors to Maysville. It was in response to this welcome that Dr. Hardman spoke.

Mayor George H. Brown, of Lowell, Mass., has ordered his street and sewer departments to have the season's constructive works finished before September 6, the opening day of the automobile carnival in that city. He has directed that work be carried on by night as well as day on the streets to be repaved in the center of the city. The program contemplated by the street department would have left main thoroughfares torn up in September.

Dr. Charles M. Ausley, chairman of the Good Roads Committee of the Chamber of Commerce, of Tallahasee, Fla., is inspecting the roads and watching improvement operations in Decatur and Thomas counties. In speaking of his contemplated trip. Dr. Ausley said that he expected to talk with the different county commissioners, the road superintendents and en-

gineers, and bring back with him a good store of road construction knowledge and facts, figures and statistics. "The issuance of bonds for good roads means good roads for the present generation," declares Dr. "Why should we build a few Ausley. miles of road and then let the next generation build a few more, and so on? To have good roads we must have them all built at once, and let posterity help pay for them. The future generation and the future settlers who are induced here by good roads will get as much, if not more, benefit out of them than will we; so why not let them help pay for them? If we are going to put down several miles of road here and a mile there, we can not hope to accomplish anything with the project; we must show our people that we need the roads first; and second, that we need them right now and not a hundred years hence."

Among the summer residents at the Cape Cod, Mass., summer resorts there are a number of good road advocates, and as a result the highways on the cape are receiving unusual attention. It was only last summer that a few of the villages tried putting oil and tarvia on the streets to lay the dust, and this season there is hardly a town on the cape but has some of its main streets covered.

The Commissioners of Hamilton County, O., are preparing to have some of the important roads of the county treated with a dust preventive.

The State Road Commission of Maryland is making plans which may result in a number of roads being constructed under its direct supervision. Contractars who have previously done this work are apparently attempting to charge exorbitant prices. The commission has nothing whatever to gain by letting out the work except to give the contractor a chance to do the work, whereas, with its chief engineer. W. W. Crosby, an acknowledged authority on road building, the commission is fully able to go ahead and build the roads. The advantage to the State in having the commission build the road will be great. Not only will there be a saving on each piece of road, but the State is sure to have better work done where there are no clashes between the contractors and chief engineer over the quality of the materials and workmanship.

AERONAUTICS

London has a ladies' aeronautical organization known as the Women's Aerial League. Included among the members are the Countess of Yarmouth, Lady O'Hagan and Lady Pirrie. At a recent meeting Lady O'Hagan explained the objects of the league, and mentioned that their intention was to give scholarships to technical schools and polytechnics with a view to inciting them to take up aerial dynamics and aerial engineering as a special subject of study. In proposing a resolution approving the formation of the league, Lady Beerbohm Tree said if they accomplished half they hoped to do they would "aviationize" society. They intended to collect money which would enable the engineers to start building British airships.

A competition for model aeroplanes will be one of the features of a scientific exhibition to be held at the Royal Horticultural Hall, London, next October.

An aeroplane trial ground is being established at Belzig, near Berlin.

A. Holland Forbes, acting president of the Aero Club of America, announced on his return from Washington early this week, where he has been acting as one of the official timekeepers of the Wright flights, that as soon as opportunity offers, he will take Mrs. Nicholas Longworth on a balloon trip. Mrs. Longworth has been an interested spectator at most of the Wright trials, and shows great enthusiasm in all aeronautic subjects.

A French aeronautic expert recently announced that, as far as known, there are now about 1.000 flying machines in the world already finished and ready to demonstrate success or failure. Of these. 225 are in the United States, 325 in France, 200 in Germany, 100 in Italy, 50 in Canada, and the remainder scattered throughout the civilized world. In the Patent Office at Washington are 385 individual patents for flying machines.

It is interesting to note how much attention foreign educational institutions are

giving to the subject of aeronautics. One of the latest which has decided to teach aerial topics as a technical science is the Northampton Institute at Clerkenwell, England. A four-year's course to cover workshop calculations, drawing and laboratory work in addition to lectures, has been arranged for.

The aeroplane Silver Dart, which has made many good flights at Baddeck, Nova Scotia, the winter home of Dr. Alexander Graham Bell, was wrecked at Petawawa Military Camp, Ontario, Canada, on Monday, August 2, during a trial flight for the Canadian government. W. W. Baldwin and J. A. D. McCurdy were both in the machine at the time of the accident, but they escaped without serious injury.

Negotiations are on between the United States Signal Corps and the owner of a farm near College Park, Md., for the rental of 160 acres, to be used as flying ground during the instruction to be given by Wilbur Wright to Lieutenants Lahm and Foulois.

The Wurtemburg government has granted the necessary funds for the establishment of a special department for the study of aerial navigation at the University of Stuttgart.

A number of Spanish aeronautic enthusiasts are conducting aeroplane experiments. One machine is in course of construction near Vittoria, and will soon be tried out on the military parade grounds at that town.

In honor of his being the first aviator to cross the English Channel in a heavier-than-air flying machine, Louis Bleriot is to receive from the Aero Club of Great Britain a gold medal similar to the one conferred upon Wilbur Wright and Orville Wright last May.

A prize of \$20,000 has been offered by Baron de Forest to the first Englishman crossing the English Channel in an English built aeroplane, the winner to beat the then best existing time on record.

Preparing for Good Roads Convention

Preparations for the second annual National Good Roads Convention, to be held at Cleveland, Ohio, under the auspices of the American Automobile Association, the National Grange, the United States Office of Public Roads and the American Road Makers' Association, are being carried forward, and everything points to a most successful affair. September 21 is the opening day, and the convention will sit until the 23rd.

The importance of the meeting is recognized by motorists and good roads advocates and workers, and there is scarcely a doubt that it will be a much more representative affair than was the convention held in Buffalo a year earlier.

F. A. Pease, who has been selected by the Cleveland Automobile Club as the chairman of the Demonstration Committee, completed the formation of his committee last week and furnished George C. Diehl, chairman of the National Committee in charge of the Good Roads Convention, with a tentative plan of the practical features which will be so prominent during the convention.

"It is probable that at the time the convention is held in Cleveland," he says, "it will be the privilege of the highway officials and delegates to witness a larger amount of road construction of various types than would be possible in any other locality within such a limited time, as the city of Cleveland and its various suburbs have let an unusually large amount of contracts for road improvement during the present scason."

Mr. Pease is now preparing a map of the city and its suburbs, on which will be clearly outlined the road work under construction, with the localities selected for special demonstrations during the convention. Besides arranging to show the practical workings of asphalt paving within the city limits, the committee is planning to give a very thorough illustration of culvert work, and A. Folgate, the county bridge engineer of Cuyahoga County, will read a paper dealing with the subject of constructing permanent sturctures across highways for water courses. This information will range from 36-inch box culverts to a magnificent concrete arch for a single span of 280 feet now being erected at Rocky River west of Cleveland.

The committee will also take up the question of testing materials that enter into road construction and emphasize the necessity for careful inspection of such materials, while also illustrating the methods by which accurate tests may be made.

The work now being done on roads in and around Cleveland presents a number of different constructive methods, and on this account will be particularly valuable to the delegates in showing them on a large scale the practical results of good roads in the making for permanent use.

The Guyahoga County Commissioners are constructing a brick road east of Cleveland Heights village, the brick being four inches in depth, laid upon a four-inch concrete base between Portland cement curves that are molded in place. This construction extends about four miles, and during the convention the work can be studied in all of its stages from the sub-grading to completing the finished surface.

Through the village of Cleveland Heights a new macadam road is being made, the surface being trap-block three inches in depth, laid upon a twelve-inch limestone telford base. During the convention the construction of this type will be observed in all its stages. Auother extensive improvement is being

made on Euclid Boulevard. Here the foundation is nine inches in depth, of two and one-half-inch crushed limestone, the surface to be filled with asphalt or coal tar sufficient to render it impervious to water by keeping it free Beginning at the Lake from dust. Shore Boulevard, a short distance bevond the easterly limits of Cleveland, a sixteen-foot pavement is being constructed. On the route to this work observations will be made of telfordmacadam, having a crushed stone base, which has successfully withstood heavy traffic for a period ranging from five to twelve vears. Another street, known as Bellflower Avenue, was macadamized with trap rock and the surface filled with tar about five years ago. This road is in excellent condition, and shows the preservation due to cementing the stone together, thus avoiding dust or mud upon the surface.

An illustration of economical road work will be seen on Lee Road. construction consists of about ten-inch blue sand-stone, hammer-broken into six-inch fragments, and placed upon the sub-grade in such a manner that the voids are as small as possible. Stone screenings are scattered over the surface and thoroughly flushed in before any rolling is done. After the sandstone is compacted, a four-inch wearing surface of blue limestone is rolled in, the top course being filled with coal tar as the work progresses. The cost of this construction is about 70 per cent. of that of the trap-rock roads. Other forms of construction are also in progress, which will be outlined upon the map now in preparation by the Demonstration Committee.

The committee selected by Mr. Pease to have charge of the practical tests and general demonstration work consists of the following members:

F. A. Pease, chairman; L. W. Page, director, Office of Public Roads, Wash-

ington, D. C.; J. C. Wonders, State Hiihway Commissioner of Ohio; Col. W. D. Sschier, State Highway Commissioner of Massachusetts; Robert Hoffman, City Engineer of Cleveland; M. E. Battles, Mayor of Cleveland Heights; L. Harms, Mayor of Euclid Village; Andrew B. Lea, Engineer Guyahoga County; J. R. McQuigg, Mayor Village of East Cleveland; W. A. Stinchcomb, Engineer of Parks, Cleveland; George T. Barnesley, Chief Road Engineer, Alleghany County, Pittsburg, Pa.; William Dilger, Superintendent of Parks, Detroit, Mich.; John Fischer, Commissioner of Guyahoga County; A. Felgate, County Bridge Engineer; H. H. Johnson, Roads Committee Cleveland Automobile Club; Hon. J. W. Stewart, ex-State Senator; H. S. Pickands, ex-Mayor of Euclid Village; C. N. Dannenhower, former City Engineer of Cincinnati; W. H. Evers, C. E., ex-County Engineer; Martin Dodge, ex-Commissioner of Highways; F. R. Lander, C. E., ex-County Engineer; E. A. Merritt, Roads Committee Cleveland Automobile Club; C. W. Pratt, former Engineer of Park System; C. E. Adams, C. R. Baldwin, M. F. Bramley, R. Hitchcock, W. B. Martin, J. L. Severence, Capt. H. W. Stoer, Grant Deming, Ralph Fuller, W. N. Gates, J. I. Lamprecht, F. J. Peck, Capt. H. P. Shupe, John W. Spence.

Repairing Roads in Northern New Jersey

Extensive repairs being made on the road between Port Colden, one mile east of Washington, N. J., and its junction with the Hackensack and German Valley roads, about one mile beyond Hackettstown, have necessitated the closing of that road for automobiles until about October 15.

Tourists visiting the popular Pompton Lake section will be glad to know that sections of the road near the Pompton station have been coated with oil.

To the North Polar Regions in an Aeroplane

That a serious attempt to explore the North Polar regions, by means of a Zeppelin airship, is to be made is rendered plain by an interview which has been given out by Professor Hergesell, who is the scientific member of the Zeppelin combination. He explained briefly recently what this Arctic project means and what it does not mean.

"The main purpose of his undertaking," he said, "is not to organize an expedition for reaching the North Pole, but to be of service in making a scientific examination of the unknown Arctic regions lying between East Greenland and Franz Josef Land. Reaching the North Pole is scientifically of very little interest. The North Pole is a mathematical point which is exactly as important and valuable as every other point in the high altitudes. Of particular interest, on the contrary, is the geographical exploration of unknown regions."

Professor Hergesell went on to say that the Zeppelin airship possesses striking advantages for this kind of scientific work. Let me quote his own words:

"The airship used in the polar regions will be applied first of all as a surveying ship, and as such it will show what actually exists there by means of photographs. Landings on the ice fields are distinctly intended, not only in case of need, but also as a definite geographical necessity. That the Zeppelin airship in its existing form can carry through this task easily has already been repeatedly proved. The undertaking will be most carefully planned and tested in all its parts beforehand, so that intentionally no specific date is given. Only this stands fast, that the individual journeys will take place in the polar summer, when the temperature for the most part is above the freezing point, or at any rate only a few degrees below the freezing point; and that these journeys will start from the supporting point in the Great Bay (meaning, as I take it, Independence Bay, near the northeastern corner of Greenland). The continuous sun of the polar summer assures a uniform atmosphere, and, therefore, the very best conditions for the use of an airship."

Prof. Hergesell is confident, not to say optimistic—more optimistic than I should care to be with an undertaking of this sort. If I am right about the Great Bay being Independence Bay the Germans will set up their workshop and store their supplies in the neighborhood where Lieut. Peary has wintered for his new dash for the pole.

It is clear enough that if the Zeppelin airship can make explorations from the east coast of Greenland to Franz Josef Land, then it can go to the North Pole. Measured by a piece of paper, the distance from Greenland to Franz Josef Land is greater than the distance from Greenland to the North Pole. If the Zeppelin airship can travel from Greenland to Franz Josef Land and back, then a journey from Greenland directly over a journey of equal length would take a from Greenland directly over the North Pole to the Siberian Islands on the other The specific intention to make landings on the ice looks like a plan of continuous travel in any direction.

At an average speed of twenty miles an hour the Zeppelin airship can travel 1,440 miles in three days, and it is only some 600 miles from Greenland to the North Pole, or 1,200 miles out and back. If the landing process is mastered it would be a very easy matter to lay out stations on a given course, with food and fuel supplies at each station, and thus to make the trip to the "mathematical point" and back with mathematical certainty.

How to Care for Acetyene Lamps

The motorist is well repaid for a little care expended on his lamps. Not only will they look better if properly attended to, but they will always light up when required and burn without the necessity of constantly stopping to adjust them, says a writer in the Automotor Journal.

There are now an enormous number of acetylene lamps on the market, and without doubt some of the more elaborate kinds give better results in the hands of the average user than the simple drip feed; but it is pretty certain that with careful manipulation the crudest kind of lamp may be made to give excellent results, provided it is not hopelessly disproportioned. Of course, it is evident that the burner must not be too large for the generator, and the waterfeed must be capable of nice adjustment; but, given these and gas-tight joints, there is no reason for blaming the lamp if it does not behave as it should. Improved types of lamps have been put on the market of late years, and these score over the older kinds chiefly because they will work well with less attention, are extremely easy to empty and clean, and require no adjustment beyond turning on a tap to set them working. The fact is often overlooked that the "drip-feed" lamp is automatic to a considerable extent in that. whenever an excess of gas is generated. the increased pressure in the carbide chamber chokes back the flow of water through the needle valve until more is required.

The best way to make a lamp work well is to keep it clean. The cleanliness should extend to every part, generating-chamber, water-valve, water-chamber, filter and burner; and when these are clean there is little more to do. The carbide-chamber should be cleaned as soon as possible after the lamp has been in use, for the residue is simply lime

(with a certain percentage of coke or gravel, depending on the brand of carbide used). The lime will set hard if . it is left, and after a while the vibration will grind it into a fine powder, which will surely clog the passages and burner, so remove it as soon as possible, and wash your hands before blowing your Talking of carbide reminds me of a very excellent story, but I am afraid Mr. Editor would decline to publish it, and, being too tender-hearted to use his scissors, would use the wastepaper basket instead. Perhaps I had better leave out the story, although it is so excellent.

Another objection to the lime is that it seems to corrode the brass of which the generator is made.

When the burner begins to choke, take it off and throw it away. Even if, with the aid of a fine wire and a bit of luck, you get it clear without chipping it, it will probably clog again very soon. If one jet of a double burner of the usual type gets choked, the flame will spurt backwards or forwards, and will most likely either spoil the reflector or crack the glass. The best way to choke a burner is to let it burn out, so always put out the flame when you turn off the water.

It is good to look at the rubber connecting tubes occasionally. Where copper tubes are used, see that there is no trap where water is likely to collect.

Nothing now remains except to polish the exterior, but this is a matter of taste. Remember, however, that if your reflector is too dirty to reflect, you lose quite half the light.

Where to Obtain Delaware Licenses

Delaware licenses can now be obtained from Charles G. Guyer, secretary of the Delaware Automobile Association, 826 Market Street, Wilmington.



WEEKLY JOURNAL DEVOTED TO THE INTERESTS OF AMERICAN AUTOMOBILISTS.

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Carving Niches in the Hall of Fame

Unusual events have followed thick and fast in the aeronautic world during the past few weeks. Curtiss, Latham, Bleriot, Zeppelin and the Wrights have all figured in a kaleidoscopic exhibition that has proved extremely interesting. First one and then the other has occupied the limelight, accomplished his performance, and given way to one of his fellow-laborers in his chosen field.

The names of Bleriot and Wright stand out most conspicuously at present. Their respective feats were completely, even spectacularly, successful; not a blemish mars their records. Each accomplished a noteworthy first. One crossed the English Channel aloft; the other made a flight over a five miles out-and-back course at a speed and with an assured control of the machine that has never been equalled, adding to the merit of the performance by carrying a passenger. Each gained gold as well as glory, one at the hands of a public-spirited newspaper, the other by a governmental acceptance and purchase of the successful machine. It has all been splendid to a remarkable degree.

Helping People Against Their Will

In fighting strenuously against the passage of universal lighting laws, farmers and other users of horse-drawn vehicles do so in the face of what is either a knowledge or a suspicion that they are standing in their own light. They know that lights are needed and should be carried for their own protection. They know,

also, that only a fair trial of the new plan is needed to bring home the conviction that it is a real blessing. But they are actuated by a disinclination to accept willingly anything that savors of progressiveness, and also by a feeling that such bills are introduced at the suggestion of, and strongly supported by, users of motor vehicles. The two combine to lead them to oppose the new order of things, and to fight tooth and nail against the passage of such a measure. It was almost as if they were adopting the oriental policy of "saving one's face" at any cost. When the bill finally becomes a law, however, many of its opponents are just as well satisfied to have their efforts end in failure.

In New Jersey the use of lamps of some kind on horse-drawn vehicles has already become a common occurrence, for that State now has a light law. As a result, their users find them to be a safety appliance of undoubted value. Cimmerian darkness may descend upon the roads, but the blacker and gloomier it becomes the more plainly the light is seen. It matters not how small it is, or how little candle-power it may possess; the illumination is there and is perceptible from afar. Other users of the road, even in swiftly moving automobiles, know that some object is in front, and it becomes a matter almost of instinct to give heed to it.

It is a great relief to motorists to be absolved from the necessity of straining one's eyes to see that the road is clear. No longer need all dark objects be viewed with suspicion—at least, they need not be when the use of lights really becomes universal.

Catering to the Farmers

The entry into the automobile field of implement houses and similar concerns dealing chiefly with farmers, which is now taking place, is an event of more than ordinary importance. It is one of the many signs which show that the motor vehicle is being taken seriously as a companion, and ultimately a supplanter, of the horse-drawn buggy, which is used so extensively by the farmer. It means, therefore, that the doubts formerly entertained regarding the matter have been set at rest and that concerns catering to the farmer's trade have made up their minds that the time for holding aloof has passed.

On the other hand, the number of concerns producing cars adapted for farmers' use is increasing, thus bringing into the regular channels of supply vehicles entirely suitable for the purpose.

The story is related of a liveryman who possessed a horse that was not afraid of automobiles. Yet, whenever one was encountered, the liveryman would hold up his hand and compel the motorist to halt, and sometimes even to stop his engine. Then the liveryman would laugh, chirp to his horse, and drive off. Retribution lurks in wait for that smart person.



TRADE DEPARTMENT

Big Order Placed for Morgan Trucks

Worcester, Mass., August 2.—What is claimed to be the largest order for motor trucks ever made has been received by the R. L. Morgan Company, recently incorporated in this city, from the American-South African Commerce Company, of Johannesburg, South Africa, for 100 cars, an order amounting to \$350,000. The cars are to be used for hauling ore on the company's mining properties and for hauling supplies and all other commercial purposes, and the management of the Morgan company say that the order may be enlarged before completion, as there is a likelihood of the South African company using many more cars in its immense mine and development business. The first car will be ready for shipment on September 1.

The inception of the big order dates back to February and was the result of an advertisement in the local Board of Trade magazine, which reached the foreign shore. The first gun of corresponence boomed on February 25, and from then on the Morgan company has been fighting for the order with many competitors.

Upon the arrival of the cars at their destination they will be expected to do much more than mine service, owing to the ravages of a new cattle plague in South Africa, which is sweeping the country. Transportation animals are dying by the thousands, and the Morgan cars will take the place of the laboring cattle teams across the twenty-five-mile stretches.

Within the past month Lewis M. Crittsinger has assumed the position of purchasing agent. He was formerly with the Chalmers-Detroit automobile plant at Detroit. The cost and production work has been taken in hand by F. W. Jacques.

Olds Company Changes Its Name

At a recent meeting of the Olds Gas Power Company, in Lansing, Mich., a dividend of 15 per cent. was declared and the capitalization increased from \$612,000 to \$1,500,000. The name was changed to the Seager Engine Works, James H. Seager being elected president, F. L. Smith vice-president, S. L.

Seager, secretary-treasurer, and James B. Seager, general manager.

The company was instrumental in making Lansing the gas engine producing center of the country, has made additions to its plant, and has doubled its capacity. It is running to its full limit.

American Zust Company Reorganizes

The American Zust Motor Company has been reorganized with the following officers: Jacob Weidmann, president and treasurer; F. S. Cowperthwait, vice-president, and J. O. M. Shrewsbury, secretary and assistant treasurer. Preparations are being made to inaugurate an energetic selling campaign, and

the company will keep on hand a full supply of all spare parts for Zust machines.

The Kansas City Automobile Dealers' Association has announced its 1910 show for the second week following the Chicago exhibition.

E-M-F. Buys a Drop Forge Plant

To supply drop forgings for the 40,000 cars it expects to build, the E-M-F. company has purchased the entire property of the Western Malleable Steel and Forge Company, of Detroit.

This plant, originally devoted to the making of malleable steel castings, has during the last three years followed the trend of demand and gone into the drop forging line on a large scale—so much so that the forging department has of late constituted the greater part of the business. Drop forged parts, crankshafts. front axles, spindles, gear blanks, connecting-rods, and in fact, all the principal parts of the motor are now made in this plant and several of the largest automobile manufacturers are its customers.

In explanation of this move, Walter E. Flanders, president and general manager of the E-M-F. company, said:

"Yes, I believe we are the first concern to own its own drop forging plant. A plant like the one we have just bought has capacity sufficient to supply forgings for several manufacturers under the old method of small quantity production. But we will build 40,000 cars next year-15,000 E-M-F. "30s" and 25,000 Studebaker-Flanders Forgings will largely enter into the construction of both these models—so largely that we will not only use the capacity of the present equipment, but will at once install several additional forges and hammers. This move was necessary to avoid all chance of delays in getting parts.

In fact, some other deals now under way will bring into our hands factories for the making of every part of these cars."

It is understood the consideration was about \$300,000.

Kerosene Made Good

Some extremely interesting data is available as a result of the participation in the A. A. A. (Glidden) tour of a White steamer using kerosene as fuel, instead of gasolene. It was found that the new fuel worked splendidly throughout the 2650-mile journey, and all claims made in its behalf were fully proven.

First of all, as regards cheapness, the White driver secured kerosene all along the route from 6 cents to 10 cents cheaper per gallon than was paid for gasolene. Secondly, the new fuel was handled without any precautions, and it was not unusual to see kerosene being poured into the fuel tank while the crew of the car and an interested crowd stood by with lighted cigars and cigarettes. At the finish of the tour, the White was the only car permitted to enter Convention Hall, where the tech-

nical examination took place, without draining its fuel tank. Thirdly, the new fuel proved to be absolutely without smoke or smell. Fourthly, kerosene could be purchased at whatever part of the route was most convenient and not more than once during the trip through the ten States of the Middle West was there found a grocery store where kerosene was not readily and cheaply obtainable. Finally, the amount of fuel used on the trip showed that kerosene is at least 15 per cent. more efficient, gallon for gallon, than gaso-

The car in other respects made a creditable showing, and there was the fort. usual rivalry among the observers to be assigned to the White, so that they could ride with the maximum of comfort. The only adjustments or repairs charged against the car during the long

trip were tightening a lubricator pipe and wiring a damaged mud guard. These penalties were not inflicted until more than 2,000 miles had been completed with an absolutely perfect score.

June a Good Export Month

June exports of automobiles and accessories show a very satisfactory increase over the showing in June, 1908. The Monthly Summary of Commerce and Finance issued by the Department of Commerce and Labor, gives \$1,115,864 as the June, 1909 figures, while only \$710,722 worth of automobiles and

parts were exported in June, 1908. Following its usual custom, the United Kingdom took the largest share, which amounted to \$436,276. British North America came next with \$287,901, while France's purchase of \$178,488 ranked third.

Following are the figures in detail:

12 months

12 months

	0 7	ending	ending
	, 1908. June, 190		· · · · · · · · · · · · · · · · · · ·
United Kingdom 203	,003 436,276	1,706,609	1,812,001
France 102	.475 178,488	692,365	661,525
Germany 52	,635 46,454		141,056
Italy 9	,761 26,666	247.357	241,660
Other Europe 53	,970 58,336	186,968	329,170
British North America 141	,550 287,901	951,386	1.692,989
Mexico 22	,491 18,074	401,617	387,446
West Indies and Bermuda 8	.836 6.372	250,201	255,158
South America 6	,911 8,382	220,644	143,730
British East Indies	952 452	29.510	23,853
British Australasia 1	,972 27,616	155,722	138,871
Other Asia and Oceania 12	,689 11,852	135,038	101,048
Africa	41 5,016	7.329	41,428
Other countries	,436 3,979	23,287	22,184
Totals	.722 \$1,115.864	\$5,277,847	\$5,992,200

Thomas Dealers Have a Good Time

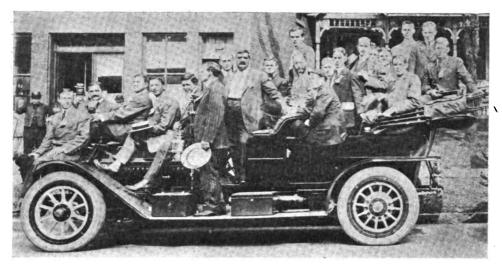
Three days of business and pleasure combined fell to the lot of those fortunate Thomas dealers who attended the convention which met in Buffalo, N. Y., the home of the Thomas Flyer, at 12 M., Monday, July 26. It was a most harmonious and successful affair. A spirit of good fellowship pervaded throughout the proceedings which was most remarkable, as in most affairs of this kind there is more or less friction and dissatisfaction, due to misunderstanding, etc.

Arrangements for the reception and care of the visiting dealers throughout their stay in the city were made by the committee in charge, and were excep-

tionally successful, not the slightest hitch occurring.

Early Monday morning automobiles were sent to meet all incoming trains, the arriving dealers being taken to the Iroquois Hotel, which was used as the headquarters, and at 10:30 were taken to the factory in special trolley cars. The visitors were then taken in charge by guides who had each been alloted a party of five, whom it was his special charge to take care of during their stay in Buffalo.

A most original and complete programme was provided for the visitors. Luncheon was served at the factory Monday at 1:30, the intervening time



A THOMAS-FULL OF THOMAS BOOMERS

until the convention convened at 3:30 being taken up with demonstrations of the various models and inspection of the factory.

The first session was opened by E. L. Thomas, who immediately turned the meeting over to his father, E. R. Thomas, who took this occasion to announce the fact that E. L. Thomas had been appointed general manager, and also to state that the report to the effect that the Chalmers-Detroit Company had absorbed the E. R. Thomas Motor Company, was a vicious lie, without any foundation, a statement which as sole owner of the E. R. Thomas Motor Company, he was able to absolutely deny.

The meeting was then thrown open to the dealers for suggestions and complaints; ways and means of handling the output to the best advantage for the coming year were discussed at length, and a comprehensive schedule adopted. The convention adjourned about 5 P. M. and automobiles were crowded with the dealers who were then taken to the Lafayette Hotel and served with a beefsteak dinner which was livened up by songs and parodies; a

pianist and vocalist assisted by a string orchestra furnishing the music. Immediately after the dinner the visitors were taken to Shea's Theatre, where a very creditable bill was rendered, concluding with a moving picture film entitled "Building the Thomas Flyer," which was received with prolonged appraise by the visitors.

phuse by the visitors.

Luesday morning was taken up with dinonstrations, inspection of the factely and business meetings. At 1:30 luncheon was served at the Iroquois Hotel. On leaving the hotel at 3 P. M. a unique demonstration was arranged for the dealers, with themselves as active demonstrators. The big 6-70 was loaded with twenty-two men whose average weight was 170 pounds. The 4-60 was loaded with sixteen men whose average weight was 165; the two machines were started and thrown into high gear and proceeded over a five-mile course which included several stiff grades, and wound up at the factory without once having been taken out of high gear. Such a convincing demonstration speaks well for this year's product and needs no comments.

The convention convened at 4 P. M.

and was addressed by E. R. Thomas, E. L. Thomas, H. G. McComb, Chief Engineer; S. B. Buxton, superintendent, and F. P. Nehrbas, the factory manager.

The talks were on the selling and the

mechanical features of this year's cars. At 8.30 that evening the visitors attended a banquet at the Buffalo Clab. There was much singing and jollity, music being furnished by a string orchestra.

A Governor in the Dakota Wheat Fields

In the general compaign for good roads which is progressing in all parts of the United States, the chief executives in several States, together with State recently made an inspection trip over the South Dakota roads in a Rambler Model Forty-Five equipped with a spare wheel.



DAKOTA'S GOVERNOR SURVEYS A BUMPER CROP

the leading members of the Legislatures, are taking an important part. Governor Vessey, of South Dakota, and a party of the leading men of that The accompanying photograph was taken in the wheat fields near Aberdeen, S. D. The pleased look of the party is due to the presence of the camera.

D. & C. Company's Special Steamer

The large and comfortable steamer City of St. Ignace is the special steamer of the D. & C. Mackinac Division. This boat makes two trips a week between Cleveland, Detroit and Mackinac, and with the two regular D. & C. steamers maintain a six-trips-a-week schedule to northern Michigan resorts. A stop is

made at Goderich, Ont., once a week in each direction for the convenience of passengers.

Send two-cent stamp for illustrated pamphlet which shows map, time tables, cost of fare and accommodations. Address D. & C. Lake Lines, 6 Wayne street, Detroit, Mich.

Parry to Begin Turning Out Cars

Indianapolis, Ind., August 3.—The Parry Auto Company, recently organized, is equipping the old plant of the Standard Wheel Company, and expects to be turning out automobiles about August 20. The company has an authorized capitalization of \$1,000,000, with David M. Parry, president of a carriage manufacturing concern for twenty-seven years, as president. Other members of the company are Warren D. Oakes, who was associated with Mr. Parry in the carriage business as sales manager; M. O. and Addison J. Parry, and William C. Teasdale, Jr.

New Michigan Company Elects Officers

The Gary Motor Car Company, of Muskegon, Mich., the organization of which was recently mentioned in Automobile Topics, has held its first meeting, electing J. J. Maloney, Muskegon, treasurer; W. L. Simonton, Chicago, secretary. The directors are the officers, with A. C. Gary, of Chicago, who owns a large share of the stock.

Hearst Sends for His Matheson

William Randolph Hearst, who has been abroad since May, has cabled his New York office from Italy to ship his Matheson car to him at once. This will make the third trip abroad for this same Matheson, which Mr. Hearst purchased in the spring of 1907. In the summers of 1907 and 1908 Mr. Hearst took his Matheson abroad with him, but this last trip, was made with another car, which is reported to have broken down.

To Copyright Steams White Line

Application has been made by the F. B. Stearns Company to have the White line around the radiator of the Stearns car copyrighted. For some time the Stearns people have used the slogan, "The White Line Radiator Belongs to the Stearns," which has become a valuable asset, and in order to protect it they have taken this step.

New List Ready for Continentals

During the past year manufacturers of Continental tires have asked a price consistent with its material, and now that it is necessary to advance prices, the attention of owners is drawn to new list No. 12. By comparing same with those published by other leading American tire makers, it will be found, it is claimed, there is a smaller increase in the cost to the consumer for Continental tires than any other standard make. The long wearing qualities of Continental tires is known throughout the world, and wherever you may motor there you will find Continental tires.

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INDEX TO ADVERTISERS

Automobiles (Electric)—
Babcock Electric Carriage Co. Baker Motor Vehicle Co. 1240 Studebaker Automobile Co. 1183
Automobiles (Gasolene)—
Chaimers-Detrok Chaimers-Detrok Motor Co. 1239 EM F Bverik: - Metager- Flanders Co. 1237 Haynes Automobile Co. 1238 Herreshoff Harry S. Houpt Co. 1239 Hudson-Hudson Motor Car Co. 1239 Inter-State Later- Estee Automobile Co. 1239 Lecomobile Lecomobile Co. of America. 1177 Matheson Matheson Motor Car Co. 1909 A. A. Tour 1209 Control Co. 1909 A. A. A. Tour 1209
Maxwell-Briecoe Motor Co
Mikchell Motor Car Co. 1180 MoraMora Motor Car Co. 1909 A. A. A. Tour 1209
Palmer 4 Singer Mfg. Co
Stearns-The F. B. Stearns Co. 1909 A. A. A. Tour 1212
1188 Studebaker Automobile Co
Automobiles (Steam)— The White Compan)
Batteries— Smaley & Patterson
Bodies— Springfield Metal Body Co
Champagnes— Fommery
Coils— Heinze Electric Co
Dust Preventives— Tarvia-Barrett Mfg. Co
Electric Welding— Standard Welding Co
Eye Tonic— Murine Eye Remedy Co
Graphite— Joseph Dixon Crucible Co
Ignition Devices— A. R. Mouler & Co

Correspondence School of Motor Car Practice	1241
Lamps— Badger Brass Mfg. Co	
Lubricants— Columbia Labricants Co	1240
Magnetos— Eisemann MagnetoLavalette & Co	1237
Oils— Columbia Lubricants Co	
Parts— Billings & Spencer	1240
Photo Engravers— sterling Engraving Co	1241
Second-Hand Dealers— Times Square Auto Co	1244
Shock Absorbers— Bi-Cal-Ky Auxiliary Spring Co Hartford Suspension Co	
Signalling Devices— Nightingale Whistle Co	1240
Spare Wheels— United States Spare Wheel Co	1240
Spark Plugs-A. R. Moster & Co	1238
Timers— A R. Mosier & Co	1238
Tires— Ajax-Grieb Rubber Co Continental Caoutchouc Co Diamond Rubber Co. Fisk Rubber Co. Morgan & Wright. Republic Rubber Co.	1237 1187 1244 1238
Tire Grips— Wood Chain Tire Grip	1238
Tops— Sprague Umbreila Co	1241
Travel— Detroit & Cleveland Navigation Co	1242
Wind Shields-	



News Notes

The Park Automobile Co., of St. Louis, has taken the agency for that city for the Hudson line.

E. W. Northstine has been appointed manager of the St. Louis branch of the Buick Motor Car Company.

The Baum Iron Co., of Omaha, Neb., has been appointed distributing agent for the State of Nebraska for Continental tires.

Capitalists of Rome, Ga., are planning to establish an automobile line between that city and Adairsville, a distance of 18 miles.

A new concern, known as the Indiana Automobile Co., have been organized in Marion, Ind., by George R. Stewart, president of the Indiana Brass and Bronze Co.

The recently-formed Badger Automobile Co.. of Columbus, Wis., has purchased a tract of twenty acres in the city of Columbus, and will begin the erection of factories at once.

A Pierce-Arrow ambulance wagon is to be delivered to the Health Department of St. Louis by the Western Automobile Co. It will be used for fast runs to the dispensaries and the city hospital.

The American Motor Company of Texas, of Carson City, Nev., capitalized at \$50,000 was recently granted a permit to do business in Texas and its headquarters in the Lone Star State will be at Dallas.

At the dealers' convention of the E. R. Thomas Motor Company, held in Buffalo last week, it was announced that Charles S. Henshaw had been engaged to open and manage in Boston a branch company for Thomas cars.

The Waukesha (Wis.) Business Men's Association held a meeting recently to consider a proposition of an automobile concern to locate in that city. The name of the concern is withheld until some definite action is taken.

The Wyoming Auto Transit Company, which runs automobile stages from Rock Springs to Yellowstone Park, is preparing to make a test of an automobile freight truck. The distance from Rock Springs to Pinedale is 120 miles. It is expected to make the distance in ten hours with a cargo of four tons.

E-M-F \$1,250 f.o.b. Detroit

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may be purchased from your Druggist.

Ask for Murine Eye Remedy. Try for Red, Weak, Weary, Watery Eyes.

After Exposure to Strong Winds, Sun and Dust.

Tourist-Autoist Size in Leather Case with Pat. Stopple & Dropper....\$1.50
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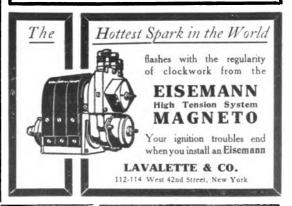
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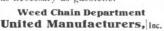
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Morgan & Wright Tires are Good Tires

Good for the motorist who finds it necessary to cut down his car maintenance expense.

MORGAN & WRIGHT

DETROIT

During the past week the managers of the Fiat Automobile Company, which is going to build a factory at Poughkeepsie, N. Y., have had their company incorporated. According to the incorporation papers, the company has a capital stock of \$2,000,000 and is formed for the purpose of manufacturing and selling all kinds of self-propelled vehicles, for use on land, water, or in the air. The directors of the concern are E. R. Hollander, P. A. Strauss, A. S. Schaaf. S. K. Lichtenstein, W. F. Ashley, Jr.; H. W. Wis, and Henry Newhauer.

A vacation of ten days in a Thomas limousine at an expense averaging \$2.50 per day for all costs pertaining to the car and including the driver's board and lodging, is a new economy mark set by Mrs. C. C. Clay, of Fruitville, Cal., who has just returned from a 650-mile tour through Lake County. The car finished with a perfect score and it returned to "Level Lea" with the same air in its tires, which is remarkably good fortune, considering the heat encountered. The roads about Middleton and Adams Springs are dusty and rough and go rather hard on weak tires and hard riding machines. Mrs. Clay's party consisted of Miss Madeline Clay and Miss Sue Harold.

Not content with the exclusive clincher demountable rim, which they have had for three years, the Firestone Company have added quick detachable features, and offer the 1910 rim as a radical improvement. The present rim requires no stay-bolts and permits of quicker and easier changes of tire on detached rim. Should the motorist have more than one puncture, repeated changes may be made while the tire remains on the wheel under precisely the same conditions as if demountable rims were not used. A feature appealing to car manufacturers is the fact that raw wheels may come equipped with the base pieces of this rim, and any desired clincher or quick detachable tires may be added without further alteration to wheel.

Four hundred and eighty-seven miles, the distance between Los Angeles and San Francisco. in 16 hours 46 minutes and 30 seconds. is the new sensational record established last week by L. B. Harvey. of San Francisco, in his new Rambler Close Coupled Model Forty-Five. This Rambler also holds the record for the round trip between Los Angeles and San Diego, winning the Chanslor-Lyon trophy in that run in December of last year. Three hundred and thirty-two miles in 10 hours 32 minutes, over roads not prepared or patrolled, is the record in this contest. Harvey left Los Angeles at 3 A. M., reaching Santa Barbara in 4 hours and 55 minutes. Between Los Oilavs and Santa Maria time was lost because of

wash-outs on the road. A puncture delayed the trip at San Luis Obispo and at one point the driver lost the road, thereby losing half an hour.

INCORPORATIONS

Dover, Del.—Brazer Garage Co., with \$100,000 capital. Incorporators: C. G. Glenn, J. K. Davis, J. Y. Sinton and Robert Sommers.

Columbus, O.—The Imperial Motor Car Co., with \$500.000 capital. Incorporators. C. C. Carpenter and Stanley Helvey.

East Orange, N. J.—Universal Auto Co., with \$50,000 capital, to manufacture automobiles, etc. Incorporators: P. Osborne, H. B. Ludlum and W. H. Briarley.

Memphis, Tenn.—Corbitt Taxicab Co., with \$180,000 capital. Incorporators: S. R. Corbitt, J. J. Freeman, W. H. Kyle and Ben Peebles.

Chicago, Ill.—U. S. Ball Bearing Mfg. Co., with \$50,000 capital, to manufacture ball-bearing devices. Incorporators: F. Henzelman, C. Rathert and J. W. Utesch.

South Bend, Ind.—Emergency Automobile Tire Co., with \$25,000 capital. Incorporators: Charles M. Culp, A. J. Kroencke and G. C. Fish.

Syracuse, N. Y.—Garlock Automobile Specialty Co., with \$10,000 capital. Incorporators: Olin J. Garlock, Herman D. Sanford and D. Van Alstine.

Hot Springs. Ark.—Hot Springs Automobile and Livery Cmpany, with \$2,000 to \$10,000 capital stock. Incorporators: E. B. Warren, T. W. Jordan and J. W. Harper.

Brooklyn, N. Y.—Sharpe Tire Protection Company, Inc.., with \$150,000 capital. Incorporators: George W. Sharpe, William S. Hurley, Albert E. Richardson, Samuel S. Whitehouse and Magnus C. Madsen.

New York, N. Y.—The Hudson River Garage Co., with \$5,000 capital. Incorporators: A. F. Moran, Allan Lane and J. J. Beverly.

Trenton, N. J.—Trenton Taxicab Co., with \$5.000 capital. Incorporators: Nicholas Snyder, Joseph G. Buch and Frank M. Snyder.

Poughkeepsie, N. Y.—F.I.A.T.. with \$2,000,000 capital. Incorporators: E. R. Hollander. Joseph A. Strauss, Albert S. Schaaf, Solomon K. Lichtenstein, William A. Ashley, Jr., Henry H. Wise and Henry Newhauer.

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The Utmost for \$1500

No motor car at anywhere near the price can compete with the Chalmers "30" at \$1500.

We also make the Chalmers Detroit "Forty" (formerly the Thomas-Detroit Forty) for \$2750.

Write for certains.

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Send 10 cents in stamps to cover cost of mailing, and we will send you a beautifully illustrated book on the New York-Paris Race.

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Hudson "Twenty" \$900 "Look for the Triangle on the Radiator"

Most low priced cars have been too small. In the Hudson "Twenty" you get a big car with a 100 inch wheel base, and 32 inch wheels. It is as roomy as any roadster made, regardless of price. To insure absolute comfort to the driver and passenger, the foot pedals are adjustable, A woman can drive it with as much comfort as a δ -foot man.

Write for complete specifications.

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GUARANTEE

The manufacturers guarantee to replace any broken parts due to faulty material or workmanship, if sent them, charges prepaid.

U. S. Spare Wheels are made in sizes to fit any Automobile wheel and are made for clincher or detachable rims.

and are made for canculer or detailable rims.

They are highly finished in Black Enamel unless otherwise ordered.

Any style of finish desired can be furnished upon application.

Covers can be furnished for any of the sizes.

For sale by all dealers in automobile supplies; or sent direct.

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Baker Give more Electric er mileage. icles Calalog sent on request. Baker Motor Vehicle Co., 32 W. 80th St., Cleveland, O.

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Especially prepared flake graphite for motor lubrication. Increases H. P., saves wear, cuts mileage cost. Get booklet 11 G and sample.

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The Device that Made Safe, Speedy and Comfortable Automobiling Possible. Write for Catalogue, Department D. HARTFORD SUSPENSION CO.

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Automobile Calendar

- August 7.—Hill-climbing Contest at Richfield Springs, N. Y.
- August 11, 12, 13.—Motor Boat Carnival off Newport, R. I., under the auspices of the Newport Yacht Club.
- August 17.—Automobile Track Race Meet at Cheyenne, Wyo., under direction of the Cheyenne Motor Club.
- August 19, 20, 21.—Automobile race meet, Indianapolis Motor Speedway.
- August 22.—A series of Speed Trials, under the auspices of the Automobile Club of Frankfort-am-Main.
- August 22-29.—Aeroplane Races at Rheims. France, under the auspices of the Aero Club of France.
- August 24-27.—Circuit of Ardennes; Liederkerke Cup and Voiturette Race, under the direction of Automobile Club of Belgium.
- August 26, 27, 28.—Three Days' Endurance Contest, under the auspices of the Minnesota State Automobile Association.
- August 27-28.—Second 24-Hour Race at Brighton Beach, under direction of the Motor Racing Association.
- August 29-September 3.—Small Car Competition, under direction Automobile Club of Germnay.
- September 4-5.-Mont Ventoux Hill-climbing Contest, under the auspices of the Vanclusien Automobile Club.
- September 4-5-6.—Three-day's endurance contest, under the auspices of the Council Bluffs (Ia.) Automobile Club.
- September 4-19.—Austrian Aero and Industrial Exhibition at Linz.
- September 5.—Aeronautical events at the Indianapolis Motor Speedway grounds.
- September 6-11.—Six Days' Motor Carnival. under the auspices of the Lowell (Mass.) Automobile Club.
- September 11-19.—Florio Cup Race, under the auspices of the Automobile Club of Bologne, Italy.
- September 12.—Two Automobile Road Races, under the auspices of the Automobile Club of Ostend.
- September 15.-Start of Endurance Contest from Denver to Mexico City.

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September 18.—Decorated Automobile Parade at Denver, Colo., in connection with the second annual Colorado Inter-State Fair and Exposition.

September 19.—Semmering Hill-climb.

September 21-23.—Good Roads Convention of the American Automobile Association at Cleveland, Ohio.

September 21-29.—Frank A. Munsey reliability tour from Washington to Boston and return.

September 24-25.— Twenty-four hour race and short distance events, Indianapolis Motor Speedway.

September 25-October 8.—Aeronautical events in connection with the Hudson-Fulton celebration, New York.

September 30.—Floral Automobile Parade, under direction of the Washington, D. C., Automobile Club.

September 30-October 8.—Exhibition of aeronautic motor engines at Paris.

October 2-17.—Aeronautical Salon in the Grand Palais, Paris, France.

October 4.—Dirigible balloon and aeroplane events, under the direction of the Aero Club of St. Louis.

October 7.—Second Annual Stock Chassis Race in Fairmount Park, Philadelphia, under the auspices of the Quaker City Motor Club.

October 8-9.—National automobile race, Indianapolis Motor Speedway.

November 6 to 13.—National Automobile Show in Auditorium Armory at Atlanta, Ga. Auspices of National Association of Automobile Manufacturers. Samuel A. Miles and Alfred Reeves, managers, 7 East 42nd Street. New York.

December 29-30.—Fourth Annual Mid-Winter Endurance Contest, under direction of the Quaker City Motor Club.

December 31-January 7.—New York City, Grand Central Palace; Tenth International Automobile Show. Under management of the American Motor Car Manufacturers' Association with the Importers' Automobile Salon and the Motor and Accessory Manufacturers. Alfred Reeves, general manager, 505 Fifth Avenue, New York City.

January 8-15.—Tenth Annual National Automobile Show in Madison Square Garden, New York, under the auspices of the Association of Licensed Automobile Manufacturers.

February 5-12.—Ninth Annual National Automobile Show in Chicago, under the auspices of the National Association of Automobile Manufacturers.

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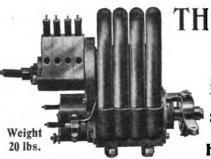
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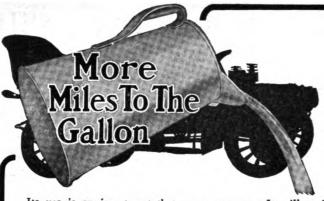
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"You Screw the Battery In-We've Done the Rest."

if you were an electrical engineer—you'd never let your new Car come to you with Storage Batteries for Reserve Ignition.

You'd certainly prefer a battery set that requires attention

only once or twice in the whole season !- and that's all the



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requires. Its fundamental principle is a SCREW TOP BATTERY CELL which, without wires or binding posts, screws into a Solid Hard Rubber Plate, automatically making all connections.

This Hard Rubber Plate forms a solid, substantial, waterproof cover for the Battery Box, and as all

Contacts are moulded solid into this Rubber Plate, no possible loose connections, bad contacts, trouble from dampness, or anything of this sort is possible. The Battery Cells are SUSPENDED from the Plate and do not rest on any surface where dampness can collect.

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NOTE.—Battery Cells to fit "PATTERSON" WIRELESS DRY BATTERY HOLDERS are now regularly manufactured by all prominent makers of Dry Cell Batteries throughout the country. When ordering Batteries simply specify that the "PATTERSON" SCREW TOP CELL is required in place of the old Binding Post type of cell.

Do not forget that you can use old style binding post cells if, in an emergency, "screw tops" are not at hand.



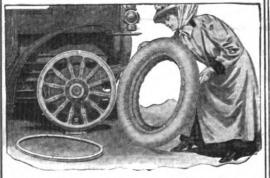
YES OR NO?

Do you like to spend 30 minutes or more repairing a punctured tire when you are out in your car

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Is it worth while losing time and temper when you can provide for immediate change of rim and tire in case of puncture?

Don't you owe it to yourself—to your family and your friends to use safe equipment-tires that are bolted-on and can not be wrenched off, instead of those dependent on air pressure for attachment?



The Fisk Removable Rim WITH THE BOLTED-ON TIRE

is the absolutely safe tire combination and excels others in SPEED and SIMPLICITY

We guarantee Fisk Bolted-On, Clincher and Q. D. Tires only on rims bearing inspector's stamp shown herewith.



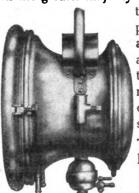
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are satisfied with nothing but Solars. That is why you find

OLAR LAMPS

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AUTO BARGAINS

THERE TO USED CARS

HIGH GRADE CARS HAVE FOUR
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CHEAP NEW CAR
WELL MADE CARS OF HIGH
GRADE MATERIAL ARE AT
THEIR BEST AFTER A FEW
MONTHS' SERVICE AND DO LAST
FOR YEARS.
THEREFORE WHEN YOU KNOW
THAT YOU CAN BUY A FULL
SIZED, ROOMY, SUBSTANTIAL
CAR AT THE SAME PRICE THAT
YOU WOULD PAY FOR A SMALL
CAR WHICH LOOKS CHEAP,
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MORGAN & WRIGHT - - DETROIT





THE WHOLE TRUTH

About Glidden Tour Tire Results and the Grounds Whereon

Diamond TIRES WIN

AVERAGE TIRE COST PER CAR ON DIAMOND TIRES
(And all Diamond Tires were regular stock tires)
(Five different well-known makes used)\$38.16
AVERAGE TIRE COST PER CAR ON MAKE OF TIRES
HAVING SECOND LOWEST COST RECORD \$33.55
BLOWOUTS ON DIAMOND TIRES 2
BLOWOUTS ON OTHER TIRES
(Approximately equally proportioned among the different makes)
STONE BRUISES OF DIAMOND TIRES 8
Note with what greater strength Diamond Tires resisted bruising as compared to
STONE BRUISES OF OTHER TIRES
(Approximately proportioned equally among the different makes)
NUMBER OF CARS ON DIAMOND TIRES HAVING NO TIRE REPAIRS WHATEVER. I
NUMBER OF CARS ON ALL OTHER TIRES HAVING NO TIRE REPAIRS WHATEVER I
*NUMBER OF CARS USING DIAMOND TIRES
*NUMBER OF CARS USING OTHER TIRES
CARS CONTESTING FOR GLIDDEN TROPHY ON DIAMOND TIRES 8
CARS CONTESTING FOR GLIDDEN TROPHY ON OTHER TIRES (Three different makes of tires)
POINTS PENALIZATION ACCOUNT TROUBLE WITH DIAMOND TIRES
SETS MARSH QUICK ACTING RIMS ON ALL CARS IN TOUR
SETS OTHER OUICK ACTING RIMS USED
(Divided among four competing makes)
Total length of tour, 2,636 8-10 miles; roads much worse than general average of highways.
(*Not including motor buggy having Diamond Motor Buggy Solid Tires, whose record was perfect, or truck which also used Solid Tires.)
rect, of truck which also used bond Thes.)

BEAR PARTICULARLY IN MIND

That the above record is figured impartially and based on strictly reliable observations. (Detailed figures sent on request.)

Many conflicting claims as to tire performances in the Glidden Tour will be made. Read them all.

put confidence where you will, but the above is the record reduced to dollars and cents. Representations will come to you that such and such number of cars went through on original casings. So did the cars on Diamond—every one of them—but not on all four original casings, in every instance.

AND NOTE THIS

No Diamond casings or tubes suffering injury were repaired enroute and returned to cars to permit of advertising a finish on original casings or tires. It is known this was done in various instances.

REMEMBER

No penalties were or could be imposed for tire trouble. Tires could not contribute to or detract from any car's chance of winning the Glidden or any other trophy.

Any contestant was at perfect liberty to change tires at any time without penalty.

A perfect or imperfect score bore no relation to tires, one way or another.

The only measure of comparative tire efficiency available in the whole tour is that of cost for the mileage delivered. But what measure is better suited to determine relative tire values.

AND REMEMBER

That scores of other public events,—and thousands upon thousands of individual tests have confirmed the annual Glidden Tour verdict—Diamond Tires are the best and the most economical.

Take the 1,000 mile tire test made by the Chicago Motor Club,—a conspicuous Diamond victory,—take the six-months' <u>Upkeep Contest</u> of a well-known automobile manufacturing concern,—also won on <u>Diamond Tires</u>—take endurance runs, sealed Bonnet contests—take any test you will—<u>IN POINT</u> OF DURABILITY DIAMOND TIRES HAVE NEVER SUFFERED A DEFEAT.

REMEMBER ALSO

That although the course of this year's tour was nearly 1,000 miles greater than in 1908, and the roads worse, Diamond Tires made the same good showing they made last year, and, conditions considered, a still lower mileage cost.

THESE TELEGRAMS ARE SELF EXPLANATORY

Kansas City, Aug. 1—Chalmers-Detroit car 52 wins Detroit Trophy on Diamond Tires. Two still have Detroit air. My whole tire service perfect. JEAN BEMB.

Kansas City, July 30—Congratulate you on service given by Diamond Tires on our No. 5 car. Four original casings are on the car after 2,700 miles of hard work and all in splendid shape. HOWARD MARMON.

Kansas City, July 31—Diamond Tires on White car have finished Glidden Tour with Cleveland air in two tires. Two punctures only trouble. Very satisfied. H. N. SEARLS.

Kansas City, July 31—Our Premier car No. 1, Diamond Tires, gave satisfactory service throughout Glidden Tour just finished.

WEBB JAY.

Kansas City, July 30—Remarkable service was given by Diamond Tires on the Thomas No. 11, largest and most powerful car in Glidden Tour. Two punctures and a cut only trouble in entire run. GUSTAVE BUSE.

Kansas City, July 30—Mason car 112 finished Glidden Tour on four original Diamond Casings and same show practically no wear. Well satisfied. C. F. CLAIBERNE. Kansas City, July 30—One spike puncture only tire trouble, Diamond equipment Midland No. 12, Glidden Tour.

Service very satisfactory.

E. O. HAYES.

Kansas City, July 31—After covering Glidden Tour, Jewel car No. 7, on Diamond equipment, wish to congratulate you on service obtained, not a defect developing.

O. P. BERNHART.

Kansas City, July 30—Absolute satisfaction with Diamond equipment on Marmon No. 4 car in Glidden Tour; also heartily recommend your new Marsh Rim.

FRANK E. WING.

Kansas City, July 31—One horseshoe nail only trouble with Diamond Tires on Premier car 53, in Glidden Tour. Well pleased with service they have given. DIFF WALTMAN.

Detroit, Aug. 4—On Chalmers Glidden Tour car No. 3 Diamond Tires gave best of satisfaction. We changed no casings; one puncture was our only trouble. WILL BOLGER.

Buffalo, Aug. 5—Well satisfied with Diamond Tire equipment on my Thomas car in Glidden Tour. Diamond has always given the service.

GEORGE SCHUSTER.

THE DIAMOND RUBBER CO., Akron, Ohio



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If you are of a mechanical turn, the perfect mechanism of the STUDEBAKER will appeal to you.

If you like comfort and luxury, the appointments of the car will strike home.

If you want a car that will take you anywhere and bring you back without the usual road trouble, the reliability of the STUDEBAKER will settle the question for you.

If you are particular about style, you will find genuine beauty in our designs, taste in the minor fittings and a certain individuality that gets far away from the "factory-made" feeling.

We have letters by the dozens from many prominent people who have driven STUDEBAKER cars with perfect satisfaction, over all kinds of roads and in both hemispheres.

We will be glad to let you see what they say about their cars any time you call. Many of them have owned various makes of the highest priced foreign cars—but now swear by the STUDEBAKER.

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Olectución de la companya della companya della companya de la companya della comp

Beauty and refinement are coupled with giant strength and reliability in Woods It is therefore serviceable not only for the business or professional man requiring speed and certainty. It is splendidly appropriate for the society woman whose station demands an aristocratic conveyance of dignity and drawing room elegance.

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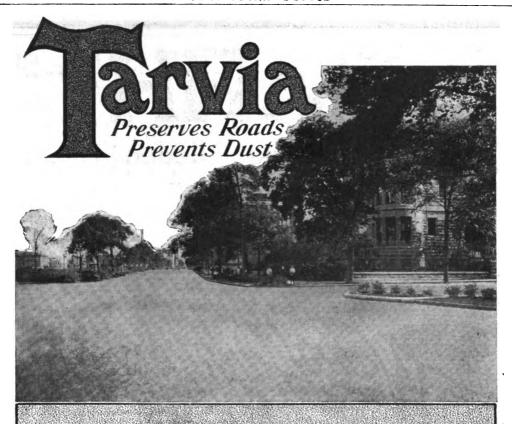
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Some such radical reinforcement of macadam road surface is an absolute necessity to-day, as every road engineer has learned by costly experience, and Tarvia is the

only answer thus far proposed and extensively tried out.

Without Tarvia the top surface of ordinary macadam will not last a year under automobile travel, and the dust nuisance is intolerable. The swift wheels suck the fine powder out of the roads and scatter it far and wide, stripping the lower courses of stone of their cushion, after which frost and the percolation of water quickly ravel the road. Continual resurfacing is so expensive that many road authorities have had to let the highways remain without surfacing, merely contenting themselves with repairing the worst breaks.

Tarvia makes macadam able to withstand automobile travel, makes the roadway dustless, and costs less than the expense of maintaining a road which has not been

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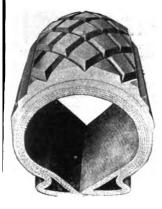
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Extra Heavy PAPH Non-Skid Tires

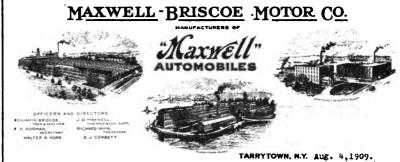
Triumph on the Glidden Tour!

3,500 miles of continuous running (including 800 miles overland from the Maxwell factory at Tarrytown, N. Y., to Detroit) over some of the worst roads in the world—and only two punctures! Read this unsolicited letter from Mr.

W. F. Smith who had charge of the two Maxwell cars on the GLIDDEN TOUR:



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Gentlemen:-

We wish to congratulate you on the excellent showing made by the Ajax tires used on the Haxwell cars in the Glidden Four.

From Detroit to Denver both contesting cars carried Detroit air. During the return trip from Denver to Kansas Gity each of the cars had one puncture, and this was the total trouble that we had during the entire trip.

An inspection at the end of the trip showed that all of the casings were in good condition, the treads looking as if they were good for several thousand miles more service.

We think this was unquestionably the best showing made by any tires during the trip. $% \left(1\right) =\left(1\right) +\left(1\right$

FFS/ACR

Yours very truly MAXWELL, BRIDGOE MOFOR CO math

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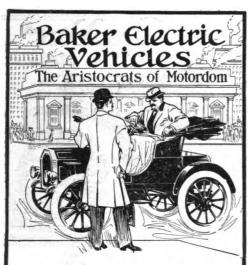
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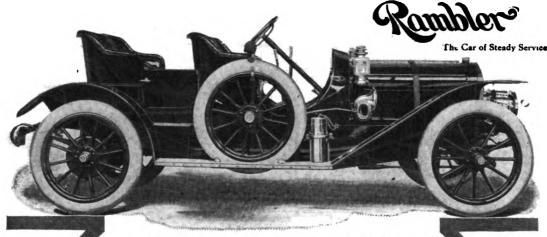
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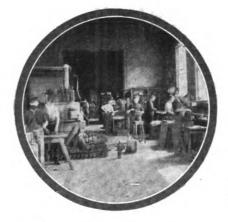
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Vel. XVIII.

NEW YORK, AUGUST 14, 1909.

No. 19.

TABLE OF CONTENTS

Denison (in Knox) Ascending Hill at Algonquin	. I . I d I . I . I . I . I
May Hold a Rival 24-Hour Race Meet Richfield Springs Accepts Automobile Racing What Lowell Will Offer Next Month. Records Fall During Algonquin Meeting Buffalo Tries Horse Racing Again Galveston Turns Out 15,000 to See Races Dispute Over Long Island Parkway Settled Ryall Establishes New Record at Lexington	. I d I . I . I . I . I
May Hold a Rival 24-Hour Race Meet Richfield Springs Accepts Automobile Racing What Lowell Will Offer Next Month. Records Fall During Algonquin Meeting Buffalo Tries Horse Racing Again Galveston Turns Out 15,000 to See Races Dispute Over Long Island Parkway Settled Ryall Establishes New Record at Lexington	. I d I . I . I . I . I
What Lowell Will Offer Next Month. Records Fall During Algonquin Meeting. Illustrate Buffalo Tries Horse Racing Again. Galveston Turns Out 15.000 to See Races. Dispute Over Long Island Parkway Settled. Ryall Establishes New Record at Lexington.	. I d I . I . I . I . I
What Lowell Will Offer Next Month. Records Fall During Algonquin Meeting. Illustrate Buffalo Tries Horse Racing Again. Galveston Turns Out 15.000 to See Races. Dispute Over Long Island Parkway Settled. Ryall Establishes New Record at Lexington.	. I d I . I . I . I . I
Buffalo Tries Horse Racing Again. Galveston Turns Out 15,000 to See Races. Dispute Over Long Island Parkway Settled. Ryall Establishes New Record at Lexington.	. I . I . I . I
Buffalo Tries Horse Racing Again. Galveston Turns Out 15,000 to See Races. Dispute Over Long Island Parkway Settled. Ryall Establishes New Record at Lexington.	. I . I . I . I
Galveston Turns Out 15,000 to See Races	. I . I . I . I
Dispute Over Long Island Parkway Settled	. I . I . I
Ryall Establishes New Record at Lexington	. I . I . I
	. I
Racing at the Town of Amarillo	. I
Is Now the Croxton-Keeton Motor Co	. І
To Discuss Future Contests	t
Automobile Topics Touring Supplement—1909 A. A. A. Tour. Section 5—Fo	
Dodge to Kearney	Ťτ
Need Not Pay Two License Fees	
Advantages of New Iersey's Coast Roulevard	. ţ
Advantages of New Jersey's Coast Boulevard. Making Roads Automobile-Proof.	• •
Ideal and Scenic Tours	
City Streets and the Horse Nuisance	
Do Three Times as Much as Horse-Drawn Vehicles	
Government to Test Autos for Dispatch-Carrying	
A Test That Meant Something	
Testing Cars With Sand as BallastIllustrate	. I
Maxwell-Briscoe Adds a Foundry	αi
Why Captain Lewis Was GladIllustrate	
Three Classes Now, But One Hereafter Editori	u 1
Inree Classes Now, But One nereatter	11 1
Contests and the Fitness of Cars	
Shipped 131 Cars in One Day	
Chalmers-Detroit 1910 ModelsIllustrate	a 1
A Fine Opening for Grafters	. І
Renault Invents Controlling Device	. І
Index to Advertisers	
News Notes	
Incorporations	
Automobile Calendar	. 1

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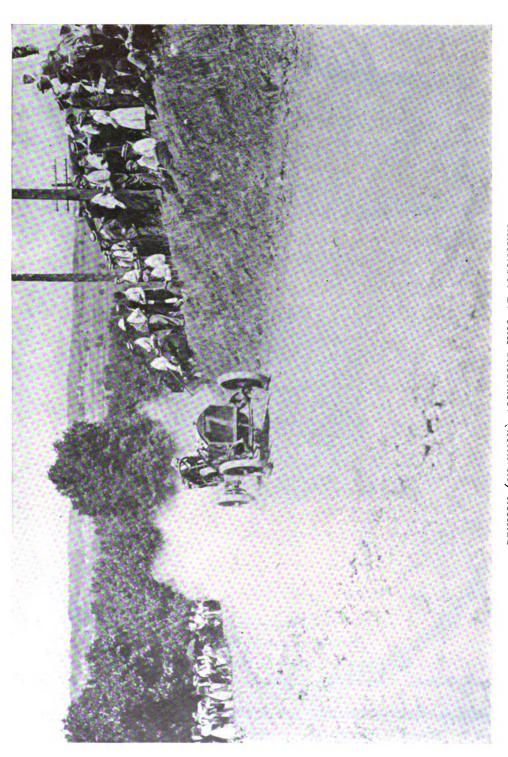
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THE AUTOMOBILE USERS' WEEKLY

Vol. XVIII.

NEW YORK, AUGUST 14, 1909.

No. 19.

T O P I C S

If all the motorists drove sanely the number of accidents, serious and otherwise, which fill the columns of the daily newspapers at

the present time would be enormously decreased. It is a fact that the average car of to-day is so well designed and constructed that its responsibility for accidents is almost a negligible quantity. Nearly all the mishaps are caused by the misbehavior of drivers—and it is not always the culprit who comes to grief. Two causes operate to bring about these mishaps—incompetence and recklessness or carelessness. Conditions should be such that neither need be reckoned with, but so long as human nature is what it is theory in this respect will be set at naught. Incompetence is, perhaps, the lesser of the two evils, for the incompetent driver is usually conscious of his shortcomings and apt to drive with a certain degree of caution. On the other hand, the supply of incompetent drivers never fails, and as soon as incompetence has been transformed into competence a new batch of incompetents appear on the scene. Experience must be acquired, and in the end the only place to obtain it is on the road. A certain amount of proficiency can be acquired, and should be, before the novice is permitted to drive in traffic, but the best this can do is to prepare the new driver for what is to come.

The presence of the reckless driver is a more serious matter. He usually possesses sufficient skill to be dangerous, and his habit of driving rapidly, of taking chances and of being totally regardless of the rights of others is the cause of a large proportion of the accidents that are recorded. It is an axiom among good drivers that one should never take chances. By this is meant that the car should always be kept under control. A turn should always be approached slowly enough to stop if the necessity should arise; a hill should be descended in such manner that the speed could be checked in case of need; at crossroads or streets other vehicles should be watched for; while pedestrians should always be given the benefit of the doubt with regard to their movements and intentions.

AUTOMOBILE TOPICS

On strange roads more than ordinary caution should be observed, especially after nightfall. The drivers who pay heed to these rules are the ones who seldom, if ever, figure in the accident column.

Few articles have been as much abused as the pneumatic tire. There are times when it is held up to execration by motorists who have been obliged to wrestle with it in its disagreeable moods; and yet, these same motorists, in calmer moments, admit its marvelous superiority over anything ever devised for wheeled vehicles. As a matter of fact, the pneumatic tire is indispensible, and to this, in large part, is due the enormous increase in the demand for rubber. Consequently the price of crude rubber steadily rises and this, in turn, sends tire prices up when the movement has reached a certain point. The fact that crude rubber has advanced 100 per cent. within the past year is accountable for the increase in tire prices which was made recently, and while there has been a disposition in some quarters to murmur at the increase, most motorists will look chiefly to the matter of quality and be satisfied if tires are beyond criticism in this respect. Good tires are worth a good price.

That frontiers will, to all intents and purposes, disappear with the coming of the air machine, is the prediction that is now being made. When this comes about customs houses will be obsolete and before very long it will not be easy to tell where the territory of one country ends and that of another begins. Thus does the impending conquest of the air take on new and wonderful aspects.

Handicapping must be a fine art in England. At the Brooklands track last week a handicap race was run, an 8 hp. autocycle being given 70 seconds start over a racing car. After running 5½ miles the autocycle finished first, with the racing car just 20 yards behind.

Whether a State law shall take precedence over a borough ordinance is a matter that is being discussed in Pennsylvania. The local authorities arrested a motorist at 8 o'clock on the evening of July 20 because his lamps were not lighted. The accused pointed to the fact that the sun did not set until 7:26 that evening and that the State law ordained that lamps must be lighted one hour after sunset. A wide-awake organization, the Automobile Club of Delaware County (Pa.), has taken the matter up for the accused, who is a member of the club, and proposes to see if the State law is not paramount.

It is said that 70 per cent. of the cars sold to-day pass into the hands of men who have had no previous experience with motor vehicles, and who know nothing or very little about their make-up or the principles upon which they are constructed and operated. We are passing through an educational period.

"Aeroplanefast" is the title given to a new meal which has become popular among Garden City residents. It appears that as the early morning aeroplane flights have been resumed on the nearby plains, there is a general exodus of enthusiasts from the hotel every pleasant morning to witness them. As these flights generally occur not later than 5 or 5:30 o'clock, it is necessary to arise four or five hours before breakfast. As a result a repast is indulged in at about 4:30 before leaving to witness the flights. It is obviously not breakfast. As the food served

partakes of the character generally provided for a breakfast, one enthusiast has suggested that the meal be called an "Aeroplanefast"—and by that name, in lieu of a better, it is known for the present.

Chicago horse lovers are confronted with a distressing condition. It appears that this year the horse show is to be conducted by some half a dozen men who happen to be enthusiastic motorists. Of course, there is nothing unusual or exciting in this, for there are very few horsemen who are not also motorists. But the peculiar part of it is that not one of these horse show promoters numbers among his possessions a horse of any kind. This being so, some people will wonder why they want to bother with a horse show.

Organization, experience and the car secured the victory in this year's A. A. A. tour. Evidencing this is the fact that the same make of car has won the Glidden trophy for the fifth time and the Hower trophy for the second time. As in previous years, there was a great deal of fault-finding at the end of the tour, but it is doubtful if this disagreeable feature can ever be eliminated from a contest of this kind, where physical endurance is such an important factor, and where continual alertness counts for so much. It is indeed an honor to be proclaimed the victor of a gruelling test like this. Even a creditable showing is something to be particularly proud of.

One of the most significant sights at Valier, Mont., characteristic of the present rapid age, are the automobiles which can be seen spinning over the smooth, grassy country in all directions, regardless of roads. There are seventeeen automobiles in this neighborhood and one of the diversions is to run down coyotes with a motor car. It is exciting sport and the bounties or scalps help to pay the gasolene bill.

It is said that difficulty is being experienced in obtaining foreign aviators for the Hudson-Fulton celebration next month. This is a case where the demand ex ceeds the supply and must do so for some time to come. Putting aside the question whether aviators are born, not made, it is a fact that much experience is required to render a person even fairly expert in the navigation of the air. Then, too, it must be remembered that a disastrous experiment is apt to check the ardor of the aspirant.

"Paris is airship and balloon mad." Bleriot has contributed materially to the spread of the disease.

The racing automobile is to have a rival at country fairs. This season balloons have been much in evidence, and now the aeroplane is to make its appearance. Contracts are being signed, it is said, to give daily exhibitions with machines that have demonstrated their practicability.

It appears that New York is not the only city where "joy-riding" in municipal automobiles has become the habit of politicians and their constituents. Mayor Hibbard, of Boston, Mass., recently signed an ordinance requiring distinctive coloring and lettering of automobiles owned by the city. The ordinance is similar to one vetoed in New York.

Col. Albert Augustus Pope Dead

Colonel Albert Augustus Pope died at his summer home, Lindermere-bythe-Sea, Cohasset, Mass., on the afternoon of Tuesday, August 10, at the age of sixty-six, after a lingering illness. He had been in failing health for more than a year and his demise was not unexpected.

Colonel Pope may well be termed the pioneer automobile manufacturer, as well as bicycle manufacturer, of America. He was born in Boston, on May



COL. ALBERT A. POPE

20, 1843, and had a remarkable career. Because of family reverses he left school at the age of ten and became a clerk in a shoe findings store in Boston at \$4 a week. At the outbreak of the Civil War he joined the Home Guards and soon became captain. In August, 1862, he enlisted as a private in the Thirty-fifth Massachusetts Infantry and served until the end of the war, becoming lieutenant colonel; was breveted for gallant conduct at the battle of Fredericksburg, Knoxville, Poplar Springs Church, and Petersburg. He was in the wholesale shoe findings business from 1865 until 1876, when he established, in 1876, the Pope Manufacturing Company, to manufacture and sell patented articles.

At the Centennial Exposition, held in Philadelphia in 1876, Colonel Pope be-

came interested in the bicycle of that day. He made a study of it and became convinced that it had a great future. He succeeded in inducing the Weed Sewing Machine Company, of Hartford, Conn., to begin the manufacture of bicycles for him, and from this beginning he built up the business until he acquired the Weed plant and transformed it into the Pope Manufacturing Company. He early associated himself with George H. Day, and built up an enormous business, making millions of dollars out of it. In 1895 or 1896 he foresaw the practicability and future importance of the motor vehicle and began experimental work in connection with its design and construction. formed the Columbia and Electric Vehicle Company, which at first was merely an offshoot of the bicycle plant, but ultimately became the Electric Vehicle Company, and engaged in the manufacture, first of electric, and later of gasolene cars, on an extensive scale.

When the bicycle slump came in 1898 and 1899, the American Bicycle Company, which was composed of the leading bicycle plants, with Colonel Pope as the largest stockholder, became embarrassed and never fully recovered from the depression. From this time on Colonel Pope gave his chief attention to the automobile business, being at the head of three gasolene car plants-those of the Pope Manufacturing Company, at Hartford, Conn., and Hagerstown, Md., and of the Pope Motor Car Company, at Toledo, O., making the Pope-Hartford, Pope-Tribune and Pope-Toledo cars, respectively; and one electric vehicle plant, the Pope-Waverley, at Indianapolis.

Colonel Pope was one of the pioneers in the movement for good roads, and for several years delivered speeches on the subject before chambers of commerce, boards of trade and other organizations. He carried his campaign to such an extent that in 1892 he began an extensive correspondence with the press, legislators, educators, writers and all classes whose influence he desired to obtain for the advancement of his project.

Colonel Pope was connected with at least a dozen corporations and banks as a director or officer. Outside of his business he had many interests, too. He was a member of the Massachusetts Society of the Sons of the Revolution, the Massachusetts Commandery of the Military Order of the Loyal Legion, of the Edward W. Kingsley Post, No. 113, G. A. R.; the Algonquin Club, Boston Athletic Association, Country Club, Art Club, Beacon Society, the Society of the Army of the Potomac, and a life member of the American Academy of Political Science, and of many other trade, social, educational and military organizations.

May Hold a Rival 24-Hour Race Meet

Reports were in circulation this week to the effect that an opposition twenty-four-hour race was projected by the Buick interests. It will be recalled that the Motor Racing Association meeting at Brighton Beach last month was open only to cars costing \$2,500 and upwards, while the second meeting, which is to be held August 28 and 28, is governed by a similar rule.

The avowed object of the rule,

it is claimed, was to exclude the Buick team, consisting of Strang, Chevrolet and Burman, who have been scooping things wherever they appeared, and a continuation of their victories was avoided by the adoption of the price rule referred to.

No authentic details of the proposed rival meeting are obtainable as yet, but it is believed that such a meet will be held.

Orville Wright Sails for Germany

Orville Wright, accompanied by his sister, sailed from New York on Tuesday of this week for Germany by the North German Lloyd steamship Kronprinzessin Cecile. It is Mr. Wright's intention to spend a month or six weeks in Berlin, where he will make a number of flights. He will also spend part of his time teaching members of the Ger-

man Aero Club to fly in aeroplanes of the Wright design. Mr. Wright's principal mission is to attend to the completion of several contracts, including one with a German company that has been organized especially to manufacture the Wright aeroplane. The preliminary negotiations with this company were made last winter by his brother Wilbur.

Long Branch Board of Trade Arranges Speed Trials

Preparations are nearing completion for the holding of a series of speed trials on Ocean Avenue, Long Branch, N. J., on Saturday, August 21. Sanction for the events was granted this week by Chairman Hower, of the Contest Board of the American Automobile Association, to a committee represent-

ing the Board of Trade of Long Branch.

The trials, which will be part of the program for Athletic Day at the New Jersey resort, will be run over one and three-quarter miles of Ocean Avenue, an absolute straightaway. The tests will be at one mile.

Richfield Springs Accepts Automobile Racing

Richfield Springs, N. Y., the beautiful and renowned resort located in the heart of Otsego Hills, was the scene on Saturday, August 7 of one of the most interesting hill-climbing contests held in the Empire State in some time. Frederick W. Burnham, an amateur, driving the Fiat racer which Lancia drove in the Vanderbilt Cup race of 1907, captured the principal event of the day,

hundred automobiles of all descriptions being lined along the course. Automobile organizations in Utica, Syracuse and other nearby cities conducted club runs to the scene of the contests, and fully five thousand persons witnessed the climbs, which were conducted under the management of Gasherie De Witt, the proprietor of the Earlington Hotel.

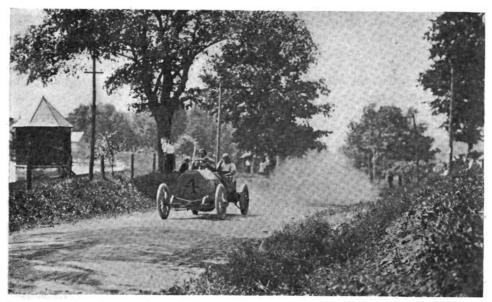
The road, which is largely composed



VICE-PRESIDENT SHERMAN PRESENTING TROPHIES

the free-for-all. Burnham negotiated the Wilder Hill, which is four-fifths of a mile long and as straight as an arrow, in 45 4-5 seconds, 2 1-5 seconds faster than the second car, a Knox "Giant" driven by William Bourque.

Rarely before has Richfield Springs been the scene of so much activity as prevailed on August 7. The town was the mecca during the day for automobile parties from all over the Empire and adjoining States, more than two of crushed rock, was in perfect condition after a slight rainfall on the day preceding the climbs, and the drivers of the forty cars that participated in the nine events were enthusiastic over it. The road was in good order, and it was too straight to present anything dangerous in its negotiation by the high-speed cars. The ideal day attracted the spectators to the scene of the climbs early and long before the scheduled time for the start the little town presented a gay



BURNHAM IN THE WINNING FIAT

appearance with its gaily decorated houses and crowded highways.

The scene at the starting point in front of the Earlington was a novel one. The vast crowd of spectators, the bright colored bunting suspended in front of the hotel, the hotel with verandas lined

on one side, the beautiful Spring Park on the other, and everybody on the tiptoe of excitement. Along the entire course from Main Street corner to Wilder Hill top the crowd stood or sat to be thrilled by the panting, rushing cars as they shot by.

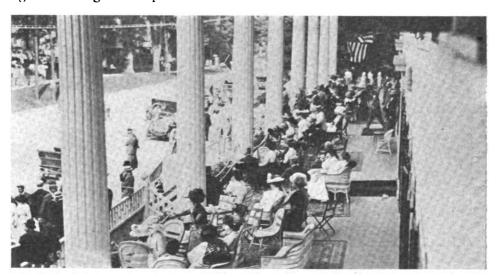


STARTING POINT IN FRONT OF THE EARLINGTON

One of the most enthusiastic spectators of the contests was Vice-President James Sherman, who unexpectedly rode out from Utica to witness the events. From his arrival at the course until after he had presented the winners with their prizes and taken a ride in Burnham's victorious Fiat, the second man in the nation was deeply interested in the contests and displayed his well-known smile throughout the day. Frederick Burnham had the honor of carrying the distinguished spectator for a

of Richfield Springs, who was instrumental in holding the contests, acted as clerk of the course.

The first car to be sent up the hill was the 20 hp. Maxwell driven by William Sickinger. The little car, which was in the \$851 to \$1,250 stock car class, negotiated the climb in 1.14 1-5. Another car of the same make driven by Arthur See was the next to try and won the class prize by climbing the incline in 1.13 4-5. Arthur Warren in a 30 hp. Buick won in the class for stock cars



EARLINGTON GUESTS VIEWING THE CONTESTS

spin up the hill in the famous racer.

The course was efficiently patrolled by police and firemen and Starter Wagner sent the first car up the hill at 2:30. From then on the cars were sent on their way by "Wag" at regular intervals. The delay usually encountered at hill climbs was eliminated by compelling the cars to return to the starting point by a back road. S. B. Stevens, of the Contest Board of the American Automobile Association, officiated as referee; Frederick H. Elliott, secretary of the A. A., was honorary referee, while "Tom" Wetzel, a resident

selling from \$1,251 to \$2,000. Its time was 1.04.

William Bourque won the class open to gasolene stock cars selling from \$2,001 to \$3,000 by climbing the hill in 572-5 seconds, the fastest time of the day up to that point. Bourque repeated in the next event, for gasolene stock cars selling from \$3,001 to \$4,000, completing the four-fifths of a mile in onz-fifth second faster time than in the previous event. Frederick Burnham, in the 90 hp. Simplex, made the fastest time for a stock car during the day in the next event, for cars selling for \$4,000

and over. The amateur driver negotiated the climb in 52 seconds, 15 4-5 seconds faster than his nearest rival, the 60 hp. Thomas, driven by Harry Corde. Harvey Smith in a 48 hp. Pierce won the event for six-cylinder cars selling for \$3,000 and over. Smith's time was 1.15.

The next event, the main event on the program, the free-for-all, was awaited with deep interest by the crowd along the course, as the high-powered racers were scheduled to compete. Bourque in the 40 hp. Knox was the first to be sent up the hill in this event and he was timed at 472-5 seconds. Following Bourque, Burnham was sent over the course in the famous 120 hp. Fiat. The big car came thundering up the course and added to the excitement by tieing Bourque's time. The 120 hp. Thomas driven by J. G. Barclay was next and was timed as .59 4-5, while the 40 hp. Chalmers-Detroit driven by Julian S. Brown, completed the distance in 57 4-5 seconds. On a run-off to decide the winner for this event, Burnham completed the climb in .45 4-5, while Bourque consumed 48 seconds making the climb.

William Bourque and his 40 hp. Knox won another victory in the class open to gasolene stock cars with a piston displacement of 451 cubic inches and not to exceed 600; minimum weight of car, 2,400 pounds. Bourque's time was 48 seconds. The final event on the card was that open to stock chassis with a piston displacement ranging from 231 to 330 cubic inches; minimum weight of car, 1,800 pounds. This event was won by Arthur Warren in a 32 hp. Buick, who completed the course in 1.02 4-5.

Immediately after the last event had been run Vice-President Sherman from the porch of the Earlington presented the winners with their prizes. Burnham was awarded the De Witt trophy donated by Gasherie De Witt for the car making the fastest time in the free-for-all, while Bourque also received a prize for finishing second in this event. Handsome cups were awarded to the successful drivers in the other events. During the presentation of the trophies Vice-President Sherman delivered a short address congratulating the participants and officials on the success of the affair.

The summaries:

Event No. I.—For stock cars selling from \$851 to \$1,250—Maxwell, 20 hp. (See), first, time 1.13 4-5; Maxwell 20 hp. (Sickinger) second, time 1.14 1-5; Buick 22 hp. (Easter) third, time 1.14 2-5.

Event No. 2.—For stock cars selling between \$1,251 and \$2,000—Buick 30 hp. (Warren) first, time 1.04.

Event No. 3.—Open to stock cars selling from \$2,001 to \$3,000—Knox 40 hp. (Bourque) first, time .57 2-5; Chalmers-Detroit 40 hp. (Brown) second, time .59 2-5; Stoddard-Dayton 45 hp. (Decker) third, time 1.08 4-5.

Event No. 4.—Open to stock cars selling from \$3,000 to \$4,000—Knox 40 hp. (Bourque) first, time .57 I-5; Chalmers-Detroit 40 hp. (Hanna) second, time

Event No. 5.—Open to four-cylinder gasolene stock cars selling for \$4,000 and over—Simplex 90 hp. (Burnham) first, time .52; Thomas 60 hp. (Conde) second, time 1.07 4-5.

Event No. 6.—Open to six-cylinder stock cars selling for \$3,000 and over—Pierce 48 hp. (Smith) first, time 1.15.

Event No. 7.—Free-for-all, open to all types and motor powers—Fiat 120 hp. (Burnham) first, time .45 4-5; Knox 40 hp. (Bourque) second, time .47 2-5; Chalmers-Detroit 40 hp. (Brown) third, time .57 4-5; Thomas 120 hp. (Barclay) fourth, time .59 4-5.

Event No. 8.—Open to gasolene stock chassis with a piston displacement of 451 cubic inches and not to exceed 600; minimum weight of car 2,400 pounds—Knox 40 hp. (Bourque) first, time .48.

Event No. 9.—Open to gasolene stock chassis with a piston displacement of 231 cubic inches and not to exceed 330; minimum weight of car, 1,800 pounds—Buick 32 hp. (Warren) first, time 1.02 4-5.

What Lowell Will Offer Next Month

New England motorists are looking forward with great interest to the combined automobile and motor boat carnival that is scheduled to be held during the week of September 6 to 11 under the auspices of the American Automobile Association and the Lowell (Mass.) Automobile Club. The automobile races, which will consist of a sweepstakes on September 6 and the second annual national stock chassis competition for the Lowell trophy on the second day following, are expected to be interesting affairs, as a number of prominent cars and drivers have already entered while others have declared their intention of participating in the events.

Of the recent entrants in the sweepstakes are two Stoddard-Daytons, with drivers to be named later, and the Rainier car which finished second in the recent twenty-four hour race at the Brighton Beach track. Louis Disbrow, who drove the car at Brighton Beach. will be at the wheel of the same car on September 6. A 24 hp. Benz has also been entered in the sweepstakes and it may be driven by David Bruce-Brown. It is also expected that Mrs. Cuneo will enter her Giant Knox, with which she won such a string of races on the New Orleans track last winter. Louis Disbrow will probably drive this car in the race for big cars.

The Spindle City is making preparations to make a general week of holiday during the racing carnival, and efforts are being made to have all the mills and factories close down for the occasion. The plan of having a number of young women sell tickets for the grandstand and reward the ten who dispose of the greatest number of tickets with a trip to Niagara Falls and return, with all expenses paid, is working successfully and many pretty girls are now "on the job."

Fred J. Wagner, who is to start the

races, and who is largely responsible for the securing of entries, has received advices from President Heinze, of the Lowell Automobile Club that everything is going along swimmingly as far as the road improvement and constructive work on the grandstands and the novel pontoon bridge across the Merrimack River is concerned. More men have been added to the working force of road builders, and Mr. Heinze is positive that the course will be in the finest shape possible, not only for the contests themto try their cars out properly a week or ten days previously.

The method of applying the thousands of gallons of oil to the road surface is a scientific one. Instead of being dripped around promiscuously to run into ruts and form puddles, as has been the process in oiling most courses in the past, it is being applied hot, so that it sinks into the surface several inches and forms an oily cohesive bed that holds itself together and is practically dustless, instead of a mere greasy surface with occasional spots of greasy mud. The oil is heated to a temperature of 180 degrees and sprinkled with special apparatus from a water wagon. Sand is then spread over the oil, and a few days later inspected and retouched where necessary, and then the same process repeated several times. Steam rollers are used to level and harden the surface.

Twiggs County (Ga.) citizens have been strongly moved by the interest which is being taken in the improvement of roads in the South. During the past few weeks more has been accomplished than has been done before in years. The main lines out of the county, reaching from Macon, will have immediate care and will be put in splendid condition.

Records Fall During Algonquin Meeting

Record-breaking was the order of the day on August 5, during the running of the fourth annual hill-climbing contests of the Chicago Motor Club at Algonquin, Ill. Len Zengle, driving a Chadwick Six, was the hero of the day, when he clipped three seconds off the record for the Perry and Phillips hills and won the Algonquin cup. This cup is offered for the fastest total time on the two hills, and was put up by the villagers themselves. It is a challenge trophy, and Zengle landed it for the ensuing year by climbing Perry hill from a standing start in .22 3-5, and Phillips hill from a flying start in .28, making a total of .50 3-5. On Perry hill the old record was .24 I-5 and on Phillips .29 2-5.

The day was ideal for the contests, and a large number of spectators were present. This year's climb was the most successful of any promoted by the Windy City organization, and in each

of the seventeen events run the time was better than in the corresponding class a year ago. The Stoddard-Dayton won three events, the Knox and Thomas two each, while in the remaining ones the honors were divided among the Oakland, Maxwell, Buick, Velie, Mason, Babcock and Holsman.

Considerable difficulty was experienced by the officials in keeping the roads clear, and this resulted in both the morning and afternoon contests being delayed. Owing to this it was not until after 6 o'clock that the last car was sent up the hill. Despite the lack of order among the spectators, only one slight mishap occurred during the running of the contests, and this was not the fault of the crowd. In the free-forall, the principal and last event on the program, as David Schetnitz, an amateur driving a Chalmers-Detroit, was approaching the tape on Phillips hill the steering gear on his car broke. Promot



WATCHING THE CARS COME UP THE HILL



LEN ZENGLE, WHO SECURED CHIEF HONORS

and effective work on the part of Schetnitz prevented his car from running amuck among the spectators.

Probably the busiest driver at the climb was A. H. Denison, who had to pilot five Knox cars up the inclines. To add to his labors, there were at least three times when he had to make a second climb because of trouble experienced at the starting line. Despite this labor, the Knox driver made a good showing, winning twice, and in the free-for-all getting third place. Miller and Englebeck, the drivers of the Stoddard-Dayton entries were also active and won more firsts than any other make of car, Miller taking two and his partner one.

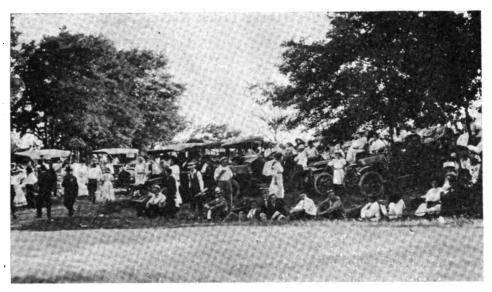
The last event of the day, the freefor-all, was awaited with considerable interest by the crowd, and it was well repaid for the extra time it spent at the course. Although Zengle won the event, he was closely pressed by Arthur W. Greiner, an amateur driver in a Thomas Six. Greiner, who won the amateur championship of the hill for the second time, was thought to have won the principal trophy up to the time Zengle made the ascent. Denison was close behind Greiner in the main event. Summaries follow:

Event No. 1.—For cars selling up to \$850—Won by Maxwell (Illingsworth), time 1.47 1-5; second, Hupmobile (Hearne), time 2.01 3-5.

Event No. 2.—For cars selling from \$851 to \$1,250—Won by Mason (Duesenbarg), time 1.13; second, Buick (Burman), time 1.33 1-5; third, Maxwell (Illingsworth), time 1.35 4-5.

Event No. 3.—For cars selling from \$1,251 to \$2,000—Won by Oakland (Bauer), time 1.11 3-5; second, Velie (Stickney). time 1.16 3-5; third, Oakland (Harding), time 1.17 415.

Events No. 4.—For cars selling from \$2,001 to \$3,000—Won by Knox (Denison),



AT THE TOP OF PERRY'S HILL

time 1.03 3-5; second, Kissel Kar (Scheneck), time 1.08 3-5; third, Grout (Habbert), time 1.17.

Event No. 5.—For cars Selling from \$3,001 to \$4,000—Won by Stoddard-Dayton (Englebeck), time .59; second, Stoddard-Dayton (Miller), time 1.001-5.

Event No. 6.—For cars selling for \$4,000 and over—Won by Thomas (Greiner), time 1.15.2-5.

Event No. 7.—For electrics—Won by Babcock (Henry), time 1.21 1-5; second, Columbus (Fenn), time 1.35.3-5.

Event No. 8.—For motor buggies—Won by Holsman (Courval), time 1.54 3-5; second, Holsman (Reninger), time 2.06; third, Schacht (Buehl), time 2.32 3-5.

Event No. 9.—For cars with 160 inches piston displacement and under—Won by Buick (Burman), time 1.25 3-5; second, Monitor (Rabenold), time 2.10 1-5; third, Maxwell (Illingsworth), time 2.23 1-5.

Event No. 10.—For cars having 161 to 230 cubic inches piston displacement—Won by Velie (Stickney), time 1.03 4-5; second, Chalmers-Detroit (Knipper), time 1.06 1-5; third, Mason (Duesenberg), time 1.06 4-5.

Event No. 11.—For cars having 231 to 300 cubic inches piston displacement—Won by Corbin (Bird), time 1.03 4-5; second. Moon (Wells), time 1.04 2-5; third, Falcar (Pierce), 1.08 3-5.

Event No. 12.—For cars with 301 to 450 cubic inches piston displacement—Won by

Buick (Burman), time .56 3-5; second, Stoddard-Dayton (Miller), time .58 2-5; third, Knox (Denison), time .59.

Event No. 13.—For stock chassis—Won by Knox (Denison), time .53 3-5; second, Stoddard - Dayton (Englebeck), time. 55 4-5); third, Stoddard-Dayton (Miller), time .56 1-5.

Event No. 14.—For cars with piston displacement not exceeding 202 cubic inches—Won by Velie (Stickney), time 1.09; second, Mason (Duesenberg), time 1.0.

Event No. 15.—With chassis with piston displacement not exceeding 290 cubic inches—Won by Stoddard-Dayton (Miller), time .56 2-5; second, Knox (Denison), time .58 2-5; third, National (Kincaid), time 1.00 1-5.

Event No. 16.—Free-for-all—Won by Chadwick (Zengle), time .50 3-5; second, Thomas (Greiner), time .53 2-5; third, Knok (Denison), time .54 3-5; fourth. National (Aitken). time .55 3-5; fifth. Stoddard-Dayton (Englebeck), time .56 4-5.

The Ohio Good Roads Association is trying to have the county fairs set aside one day when the people will be instructed on the question of good roads. Tuesday, August 31, has been selected as Good Roads Day at the Ohio State Fair, to be held at Columbus.

Buffalo Tries Horse Track Racing Again

Last week Buffalo had its first taste of horse track racing since the "sport" came to a sudden ending several years ago as a result of a horrible accident; and evidently it had forgotten all about the maiming of drivers and the affright of spectators, for it enjoyed the contests hugely.

Two famous rival racing drivers, Barney Oldfield and Walter Christie, came together during the meet, the former driving his new acquisition, the 120 hp. racing Benz, and the latter piloting his Christie Record Breaker. The rivalry between these drivers has been intense and great interest was taken in their performances. On the first day Christie took Oldfield's measure in the second heat of the three-mile sweepstakes, but on the succeeding day Oldfield, better acquainted with the car David Bruce-Brown drove so successully this year, turned the tables on Christie in another three-mile sweepstakes event.

Christie startled the crowd of 4,000 persons that gathered to witness the second day's races when he reduced the track record of 1.13, made by Henry Fournier, to 54 seconds. On the day previous Christie had set the mark at 54.3-5 seconds.

Most of the events on the program appeared as if they were made for Louis Chevrolet and his Buick car, for the winner of the recent Cobe trophy race in Indiana flashed home a winner in every one of the six events he started in, besides making a creditable showing in several mile exhibitions. In the fiftymile Buffalo Derby on Friday, Chevrolet in a Buick, and Lee Lorimer in a Chalmers-Detroit 40 were the only drivers to come to the mark, but the race proved an interesting one. Chevrolet secured a slight lead when Lorimer was compelled to change the tires on his car, and the Buick driver held it to the end, winning by half a mile in 52.10 1-5. During the running of the five-mile handicap on Friday, two Buick cars driven by A. Hoener and Fred Bush, crashed through the fence. One of the cars went off the track on the back stretch, while the other struck the fence on the entrance to the home stretch. The drivers were uninjured, but the cars were badly damaged.

Lee Lorimer, driving his Blue Bird Chalmers-Detroit, met with an accident on the second day of the carnival which nearly resulted fatally. As the car was dashing around the track on the ninetysixth mile of the 100-mile Canadian championship event, Lorimer misjudged the turn out of the back stretch and his car went crashing through the fence, tearing the posts down for fifty yards before it came to a standstill. Lorimer made an attempt to jump from the car, but was unsuccessful and was caught under the heavy racer. At first it was thought that the driver was seriously injured, for he lay unconscious on the track. But after several minutes he revived and it was discovered that besides a slight scalp wound he was uninjured.

When the accident occurred Chevrolet was leading, but Lorimer was fast overhauling him. Chevrolet finished the race a winner in 1.44.32 1-5, 32 1-5 seconds slower than the record held by Robert Burman in a Buick. The finish of the concluding heat of the three-mile sweepstakes was one of the most exciting races during the carnival. Oldfield beating Christie across the line by the slightest margin.

The summaries:

Friday, August 6.

Exhibition.—One mile, flying start—Walter Christie (Christie Record Breaker), time .54 3-5; E. C. Croker (Peerless), time 1.07; Louis Chevrolet (Buick), time .57 3-5; Barney Oldfield (Benz), time

.55 2-5; Louis Chevrolet (Small Buick), time 1.04.

Three-Mile Sweepstakes.—First heat—Christie (Christie Record Breaker) first, time 3.19; E. D. Croker (Peerless) second.

Five-Mile Open. — Chevrolet (Buick) first, 4.58; Lee Lorimer (Chalmers-Detroit) second; Ed. Jeho (Austin-Lyman) third.

Three-Mile Sweepstakes.—Second heat—Christie (Christie Record Breaker) first, time 2.49; Barney Oldfield (Benz) second.

Five-Mile Handicap.—Chevrolet (Buick) first, time 5.29; E. C. Croker (Peerless) second; E. Jeho (Austin-Lyman) third.

Fifty-Mile Buffalo Derby. — Chevrolet (Buick) first, time 52.101-5; Lorimer (Chalmers-Detroit 40) second.

Saturday, August 7.

Exhibition.—One mile, flying start—Joe Matson (Chalmers-Detroit 30), time 1.063-5; E. C. Croker (Peerless), time 1.003-5; Louis Chevrolet (Buick), time .58; Barney Oldfield (Benz), time .55; Walter Christie (Christie Record Breaker), time .54.

Three-Mile Sweepstakes.—First heat—Walter Christie (Christie Record Breaker) first, time 3.31 2-5; E. C. Croker (Peerless) second. Second heat—Barney Oldfield (Benz) first, time 2.54; Walter Christie (Christie Record Breaker) second.

Ten-Mile Open. — Louis Chevrolet (Buick) first, time 5.48; Ed. Jeho (Austin-Lyman) second; Barney Oldfield (Benz) third.

100-Mile Canadian Championship. — Chevrolet (Buick) first, time 1.44.32 1-5.

Galveston Turns Out 15,000 to See Races

It is estimated that more than 15,000 persons attended the automobile races on Denver Beach, near Galveston, Tex., on Thursday, August 5. The events, which were conducted under the auspices of the Galveston Automobile Club, were successfully run despite the action of the huge throng in crowding on the course. Fred W. Belcher, of New York, driving a Knox runabout, won the principal event of the day, the fifty mile race.

Belcher negotiated the fifty miles in the fast time of 51.54 over a course five miles in length. Four cars came to the mark for the event, which was the first to be run. The cars and drivers were: Knox, Belcher; Stearns, Kent; Munn, Munn; and Marian, Carroll. At the start Belcher went to the front and was never headed, although the Stearns gave him a great battle for the lead. The driver of the Munn stripped some gears on his car at the start and it was withdrawn. After several laps the Marian driver, being in the rear, withdrew also. Kent and Belcher fought it out to the finish with the crowd surging over the course in an effort to get a closer view of the flying

cars. Kent finished the race second in 54.17.

Tobin Dehymel, the wonderful boy driver of San Antonio, driving a Stod-dard-Dayton won the twenty-one mile race in 22.05.50. The driver, who is only nineteen years old, drove the same car in which he recently defeated Lewis Strang. The race between Dahymel and Belcher had been looked forward to with much anticipation, and Kent, with his Stearns, and Johnson, with another Stoddard-Dayton, made it more interesting. The San Antonio boy held the lead from the start and finished in front of Johnson, while the latter led Belcher, with Kent trailing in fourth place.

The day's racing ended with a ninemile race between an E-M-F. driven by S. C. Jewell, of Galveston, and a Buick driven by W. F. Chambers, of Galveston. The former car was the victor, finishing the race in 11.45. The time for the Buick was 14.01.

The Scottish Automobile Club is to present a gold badge, as a souvenir of the recent reliability trial, to each driver whose car obtained a non-stop certificate.

Dispute Over Long Island Parkway Settled

A difficulty which threatened to seriously delay work on the Long Island Motor Parkway was adjusted last week. Differences existed between the Nassau County Board of Supervisors and the Long Island Motor Parkway, but they were settled when the latter agreed to alter the plans for the proposed crossing of the Jericho Turnpike by building an undergrade crossing, and also filed applications for consents to cross three other county roads, for which consents had already been granted by the commissioners of highways of the town of North Hempstead. On their part, the supervisors agreed to withdraw the injunction proceedings in order that there will be no hold-up of the work.

The supervisors granted consents to cross the following highways: Roslyn Road, one mile north of Mineola village, where the highway is bounded on the easterly side by land of R. H. Robbins and on the westerly side by land of

Alexander Campbell: Willis Avenue. one mile north of Mineola, where the highway is bounded on the easterly side by land of the Wheatly Hills Land Company, on the west by land of Theodore Brown; Old Country Road extension, or road between Mineola and Manhasset, at a point two miles west of Mineola village, and about 1,400 feet south of the intersection of the Old Country Road and the I. U. Willets road, where the highway is bounded on the easterly side by lands of Patrick Terehan and on the west by land of E. C. Willets.

All overhead crossings will have a fourteen-foot clearance. As soon as the plans for the crossing of the Jericho Turnpike are completed the consent of the board will be given for the necescessary undergrade crossing. Having the consent of both the county and the town authorities, the work of construction will now go on without interruption.

Half a Million Tickets for Lowell Races

been ordered printed for the automobile carnival of the Lowell (Mass.) Automobile Club, to be held during Labor Day week; while 25,000 grandstand tickets and 25,000 parking space tickets have also been ordered. contract for these was placed by the Board of Governors of the Lowell club last week.

Parking spaces are going fast and a noticeable fact is that in nearly every case, "Best space possible, regardless of price," are the instructions received. Every mail is bringing in a request for allotment of spaces. The press stand is entirely completed, and the grand stand is well under way.

President Heinze, of the club, has received word that the Stoddard-Dayton

Half a million admission tickets have "people will enter four cars in the carni-*tal, two for the small car race Labor Day and two for the big race on Wednesday. Word has been received from the makers of the Rainier stating that it was also their intention to enter one car.

> The club officials are in receipt of a telegram from Howard E. Coffin, president of the Chalmers-Detroit Motor Co., and chairman of the Contest Board of the A. A. A., informing them that his company would enter four cars on the same terms as the Stoddard-Dayton people.

Sprinkling With Oil

The Department of Highways is sprinkling the macadamized roads at Bath Beach, N. Y., with oil.



Ryall Established New Record at Lexington

Automobile races played a conspicuous part in the opening day of the Blue Grass Fair, in Lexington, Ky., on August 9, as several track records were broken before a crowd of several thousand persons. James B. Ryall, of New York, who drove a Matheson in the 1908 Vanderbilt Cup race, captured the principal honors of the day. Driving a Buick car he broke the world's five-mile amateur record, covering that distance in 4 minutes, 52 1-5 seconds.

John Aitken, driving a National, defeated Louis Strang, driving a Buick, in the one-mile event, against the track record of 58 4-5 seconds, held by Barney Oldfield, and lowered Oldfield's record, his time being 58 3-5 seconds. Aitken also won the fifty-mile event, defeating Strang, his time being 53 minutes, 28 3-5 seconds.

Strang finished on three tires, and Aitken lost one, which was replaced in the record time of 36 seconds. The tenmile handicap went to Tom Kinkead, driving a National, in 10 minutes, 25 seconds for the ten miles, with one minute handicap. A National "60" was second, driven by Aitken, and a National "40," driven by C. C. Merz, third.

Crosses the Alps in Balloon

A balloon flight across the Alps was made by M. Spelterine, of Chamonix, France, piloting the balloon Sirius. Accompanied by three passengers, Spelterine left Chamonix on Sunday morning, August 8, and a landing was made two days later at a point near Locarno, at an

altitude of 5,400 feet. The Sirius traversed Mont Blanc and soared over the Aiguille du Dru and the Aiguille Verte. The highest altitude attained on the voyage was 5,600 metres—which is equal to 18,373 feet, or a little less than three and a half miles.



RAMBLER POLICE PATROL AT MINNEAPOLIS, MINN.

Racing at the Town of Amarillo

There is a track in the little Texas town of Amarillo that compares favorably with the Indianapolis motordrome. It is two and a half miles in circumference, neither round nor oval, but slightly irregular in shape, as it follows around the banks of a little lake, hundreds of which of similar size dot the State. It is used mostly for cowboy horse racing contests and is the rendezvous of the men on the round-up.

An automobile race meet lasting three days was the big event this year. On the first day the fifteen-mile free-for-all was the chief feature and the Stude-

baker E-M-F. "30" easily captured the honors although pitted against it were cars of much greater horsepower. On the second day was a fifteen-mile race for lady drivers, and again the "30" driven by Mrs. Bowie, was the victor.

On the last day, in a forty-mile race against 40 and 50 hp. cars, the Stude-baker E-M-F. "30" not only won, but set a pace that was surprising for a stock model car of its size and price. The time, 45 minutes 18 seconds, showed an average of 56 miles an hour or less than 1.08 per mile for the entire distance.

Aeroplane Flight of Nearly Two Hours and a Half

On Saturday, August 7, Roger Sommer, a French aviator, beat the world's record for a prolonged flight in an aeroplane, his machine remaining in the air for 2 hours, 27 minutes and 15 seconds. The best previous record was 2 hours, 20 minutes and 15 seconds, made by Wilbur Wright in France last year.

Starting early in the morning, Sommer began traveling slowly near the ground, at elevations varying from six to thirty yards, but soon he ascended to

a higher altitude, where he remained during the rest of his flight. Sommer used a biplane machine of the Voisin type.

On July 27 he made a flight of 1 hour, 23 minutes and 30 seconds. August 2 he flew nine miles in 12 minutes, which is at the rate of 45 miles an hour, and on August 4 he made a flight of a few seconds over two hours. Sommer was formerly a professional automobile racer.

Many Jersey Traps Are in Operation

A number of New Jersey speed traps have been put in good working order within the past week or two. One of these is at Metuchen, the same trap that was so notorious last year. There are two traps on the Trenton-Princeton road, one at Edinburgh and the other a mile and a half east of the Trenton fair grounds.

On the road to Trenton there is a trap about an eighth of a mile outside of White Horse, and several are located on the shore road between Belmar and North Long Branch. Staten Island is also busy in this direction, several traps having been established, particularly in the neighborhood of St. George ferry.

An automobile show is to be held in Minneapolis, Minn., from September 6 to 11, in connection with the Minnesota State fair. It is expected that most all of the Minneapolis dealers will exhibit, as well as a few from St. Paul and other nearby cities.

Is Now the Croxton-Keeton Motor Co.

With a capitalization increased from \$250,000 to \$500,000 the Croxton-Keeton Motor Company succeeds the Jewel Motor Car Co., of Massillon, Ohio. A product of 600 cars for 1910 is being planned, and there will be eight different models built on three chassis, as follows:

French 60, seven-passenger car, at \$4,000; German 45, seven-passenger car, at \$3,500; German 45, four-passenger car, at \$3,500; German 45, roadster, with single and double rumble seat, at \$3,500; French 30, brougham, at \$3,500; French 30, town car, at \$3,300; French 30, seven-passenger touring car, at \$3,250; French 30, suburban four-passenger car, at \$2,850.

The new concern has purchased the factory, which it has been leasing for the past three years, and has already doubled its size this year. It is designing an additional building, 160 x 380 feet, to be of saw-tooth construction, and hopes to have it under way some time during the next thirty days. It has also secured an option on seven acres of ground across the street from the present factory for future enlargements.

The German 45 cars will be practic-

ally a duplicate of the two Jewel cars which were sent through the Glidden tour.

Distributing branches have been established in New York, Pittsburg, Cleveland, Chicago and Boston, and within the next month branches in Minneapolis, Kansas City, Portland, San Francisco and Atlanta will be instituted.

Mr. H. A. Croxton, president and treasurer of the new company, has been designing and constructing machinery and machine tools for the past fifteen years. He is president of the the Massillon Iron & Steel Company, who own and operate one of the largest pipe mills in the country. He is also president of the Massillon Bridge & Structural Company, manufacturers of bridges and steel structures, and as well is president of the Massillon Foundry & Machine Company, machine tool and steam hammer manufacturers.

F. M. Keeton has been in the automobile business for the past ten years, during which time he has been connected with the Pope-Toledo and the DeLuxe Companies, and for the past two years has spent his time on a careful investigation of the taxicab proposition.

This Car Has Covered More Than 50,000 Miles

George T. Lincoln, a Boston motor enthusiast, who is touring Europe, writes that his 1906 Locomobile has recently covered 1,100 miles in England and Wales, without having given a minute's trouble on the road. He says:

"The car is evidently determined that no one here shall know she has already done some 50,000 miles or more in the United States, and she is running as quietly as a new car and a mighty sight quieter than the majority of British cars we meet. We have not made use of any non-skid contrivance as yet, and went over the wet Welsh hills without any trouble."

Mr. Lincoln is now driving through France, where he will make an extended tour.

L. Melanowski is in this country for a few weeks' visit. Mr. Melanowski, who was a few years ago a well-known designer, now maintains an engineering office in Paris.

To Discuss Future Contests

The entire subject of automobile contests, both here and abroad, is to be discussed with great care and minuteness at a meeting of the General Rules Committee of the Manufacturers' Contest Association, which is to be held at Indianapolis, Ind., on August 19, 20 and 21, during the initial races at the new Indianapolis Motor Speedway. Howard E. Coffin, chairman of the General Rules Committee of the M. C. A., has outlined the important work to be taken up at the meeting in a recent interview, which was, in part, as follows:

"To a lack of proper preparation, rather than to an inferior mechanical excellence, can be ascribed nearly all the humilitating performances of American built cars when entered in international contests: All of us, importers and American manufacturers as well, are prone to excuse a poor performance upon the part of our cars, whether the event be local, national or international, upon the ground that we did not have sufficient time at some stage of the game to get either our organization or our cars into proper shape for the competition. This condition of chronic "unpreparedness" can, in the case of the American manufacturer, be partially ascribed to a lack of attention given to such matters on account of the pressure exerted in other lines directly associated with the producing and commercial end.

"Many times in the past, particularly in the case of events of national or of considerable local importance, insufficient notice as to date and conditions upon which and under which a contest is to be run, has been given to those who have been asked to support the event with entries. An important bit of work which is now being pushed by the association will certainly go far toward putting an end to this kind of trouble, with a result that the average car en-

tered in 1910 competitions should make a much better showing before the public than in the past.

"The Manufacturers' Contest Association, embracing within its membership those American manufacturers and American importers of foreign cars who firmly believe in the value of that class of publicity, which may be obtained from competition in properly governed and properly conducted motor car contests of every kind, has, since its foundation in Chicago last February, taken many steps toward the elimination of the chaotic conditions pertaining to contest matters.

"From the beginning, the work of this organization has been aimed toward an elimination of the causes of the trouble rather than toward the application of a cure to each individual complaint. The removal of the causes that have gone to encourage the old excuse of 'If we had only had another week's time,' is certainly not the least of the several lines of work mapped out by the Manufacturers' Contest Association.

"The constitution and by-laws of the organization call for a meeting of the General Rules Committee each year in August. Upon this General Rules Committee are the representatives of twenty-five of these concerns-manufacturers and importers-who have shown the most activity in contest matters during the past two years. This . meeting is scheduled this year at Indianapolis, Ind., upon the dates of August 19, 20 and 21, at the time of the opening and initial race meet of the Indianapolis Motor Speedway—the first of the several great speedways that are being built or will shortly be built in America, upon the plan of the famous Brooklands track, near London, England.

"At this meeting will be discussed, by

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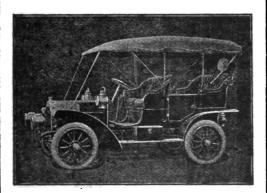
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1909 A. A. A. TOUR

Section 5—Fort Dodge to Kearney

Leaving the Des Moines River at Fort Dodge, the A. A. A. tourists headed for the Missouri River, crossed it at Council Bluffs and then followed the Platte River through Nebraska. The details of the route Fort Dodge to Kearney follow:

Go over Des Moines River and turn right; left at top of hill; one block, left; 1½ blocks, right; cross-road, right; cross-road, right, to Moorland; R. R., turn left; end of road, left; cross-road, left; right, right to Callender; turn left; cross-road, left to main street of

Gowrie (21.6 miles).

End of road, left; cross-road, left; end of road, left; cross-road, right; cross-road, left; first right turn through Paton; left, and over bridge; right after bridge to Dana; left to Grand Junction; end of road, right; end of road, left; turn right; turn right to Jefferson; end of road, left; fork, right, through

Scranton (60.3 miles)
Cross-road, left; end of road, left; right
turn; left turn; end of road, right; crossroad, left; to Ralston; R. R., right; crossroad, right; R. R., left; right to Glidden;
cross-road, left; cross-road, left, to

Carroll (70.5 miles).

End of block, left; right on W. Third St.; end of street, left, and right at fork; end of road, right; turn left; fork, go right; through West Side; fork, right; left; left with wires; through Vail; turn right at 106.4 miles; right on S. Sweet St.; left on

E. Broadway of Denison (107.2 miles).

One block; left on S. Main Street; fork, right; R. R., left; bridge, right; fork, right; cross-road, right, through Arion; fork, left; fork, left; through Dow City; cross-road, right; turn left to Dunlap; first right; left; turn right; fork, left; cross-road, right; end of road, left; through Woodbine; fork, right; fork top of hill, right; end of road, left; end of road, right; end of road, left; end of road, right; R. R., left; right; left; cross-road, right; through Logan; end of Park, left; one block, right; one block, left; end of road, right; fork, left: end of road, left; fork, left; right on Erie Sq.

Misscuri Valley (158 miles).

Left, Sixth St.; fork, right; through Loveland, to Honey Creek; fork, right; through Crescent; left on Pearl St. to Grand Hotel,

Council Bluffs (181 miles).

From First Ave., right on Eighth St.; left on Broadway; cross bridge; left on S. Thirteenth St; right on Farnum St., Omaha; right on Thirty-ninth St.; left on Dodge St.; left through Elkhorn; one block, left; fork, left; right, through Waterloo Valley; cross-road, right; end of road, left; fork, left; fork, right, to Freemont; one block, right; two blocks, left; one block, right; turn left, leaving wires; end of road over R. R., right, to Ames; right over R. R.; turn left; right curve; left turn, through North Bend; end of road, left; R. R., right; curve right; left at first turn, to Rodgers; end of road, left; turn left; turn right; cross-road, left; first turn, right, and first turn, left, to Schuyler (254.8 miles).

Right turn; one block, left; right at first turn; end of road, left; right with wires; right over R. R., then left through Benton; cross-road, left; right on Eleventh Street, through

Columbus (271.3 miles).

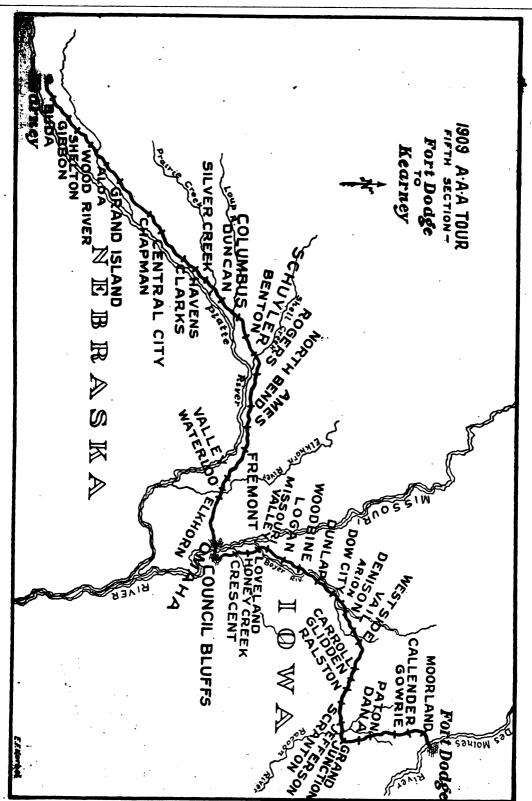
Left on O St.; right on Seventh St.; end of road, left; over bridge and first turn, right; through Duncan; left over R. R.; fork, keep to R. R.; through Silver Creek, Havens and Clarks; left over R. R., and right turn; over R. R.; right fork; right on Sixteenth St.; through

Central City (312.4 miles).

Right at 318.3 miles to Chapman; at second cross-road, right; curve left to Second St., Grand Island; end of road, left; turn right; over R. R. and turn left to Alda; over R. R. at cross-road; second cross-road, right; cross-road, left; cross-road, right; third cross-road, left; R. R., right; cross-road, left; R. R., right; through

Wood River (353.5 miles).

Turn right; two blocks, left; end of road, right; end of road, left; turn right with wires on left; end of road, left; turn right with wires on left; end of road, left; turn right with wires on left; cross-road, left; R. R. right; turn left to Shelton; R. R. right to Gibbon; to Buda; right at R. R. to Midway Hotel, Kearney (381.2 miles).



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1910 Announcement

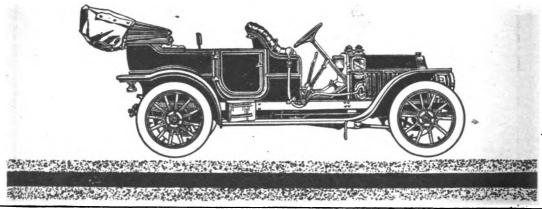
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the members of this committee, all recommendations regarding the rules, changes in rules, classifications, etc., for 1910. All changes suggested by the actual experiences of the present season will be considered. The 1909 rules of the Contest Board of the American Automobile Association are the result of the combined efforts of the General Rules Committee of the Manufacturers' Contest Association, the Contest Board of the American Automobile Association and the Advisory Committee of the M. C. A., representing this body upon the Contest Board.

"It is unfortunate that the incorporation of the M. C. A. occurred so late in the spring of this year that the revised classifications and rules could not be announced at the beginning of the season. Otherwise there would have been avoided much of the uncertainty that has existed in contest matters during the early part of the year.

"In September, immediately following the August meeting of the General Rules Committee, and as a direct result of the findings of this committee, announcement will be made as to the changes in the present governing rules and classifications, accompanied by the publication by the Contest Board of the A. A. A. of the annual rule book, wherein will be covered all conditions governing motor car events to be held between the dates of January 1 and December 31, 1910. At the same time will be published a complete schedule giving the approximate date and ail necessary information pertaining to each and every contest of importance which is to be run during the season of 1910.

"With such an announcement made in September, coupled with the publication of the rules and conditions, which become effective January I, there can be little reason or excuse for a lack of preparation upon the part of any manufacturer or importer who proposes to make entry in contests of any kind.

"The Manufacturers' Contest Association does not control contests either local, national or international. In all national affairs this association recognizes the direct and supreme control of the Contest Board of the American Automobile Association.

"International matters clear through are handled by the Automobile Club of America. The exact relations existing between the M. C. A. and the other two representations mentioned are outlined in formal contracts which have been, or soon will be, executed in due form.

"Printed blanks have already been sent out from the secretary's office of the Manufacturers' Contest Association to those manufacturers and importers enrolled as members, and upon these blanks are being sent in the suggestions which will outline the attitude of the majority upon all items of national and international importance. All recoinmendations upon international matters will, after discussion at the August meeting, be formally transmitted to the Automobile Club of America and will later, through its delegates, be presented at the international conference abroad.

"Among the more important subjects to be discussed in Indianapolis are the following:

"I. Recommendations as to changes in the classifications and weights for 1910 season.

"2. Changes to be recommended to the Contest Board for the American Automobile Association rules of 1910.

"3. The possibility of the support by the Manufacturers' Contest Association of an impartial and thoroughly capable technical committee, which shall serve at all competitive contests.

"4. The arrangement of a definite

and logical schedule of all important contests for the season 1910, with a view to the announcement in September of this year of the approximate dates, character and general conditions governing all such events. (From information at hand it is a certainty that the promoters of all annual events for 1910 will be very glad to co-operate, as may be suggested by the M. C. A., in so scheduling these contests as to avoid interference of dates. The interests of the promoter and of the manufacturer who is asked to support the contest with entries are mutual.)

- "5. National events. How many shall be supported, and of what character?
- "6. International events. How many shall be supported, and of what character?
- "7. Endurance contests. Action to be taken upon the recommendation made by the National Association of Automobile Manufacturers, that only one endurance contest be scheduled for any

one section of the country, and not more than four be supported by manufacturers' entries.

- "8. Road racing versus track events upon specially constructed speedways of any less than two miles in circumference.
- "9. Shall racing upon existing mile and half-mile horse tracks be counteranced or supported in any way?
- "10. A standard electrical timing device for the elimination of human error in the timing of all important speed events.
- "II. A satisfactory definition of the term 'Stock Car.'
- "12. Steps to insure the enforcement of the rule governing the character of the publicity matter employed by any maker covering the performance of his cars in any contests. All such publicity must be in accordance with the facts.
- "13. A formula for the proper comparison of the performance of steam and gasolene automobile motors."

Need Not Pay Two License Fees

Connecticut motorists have been somewhat exercised over the report that they would be compelled to pay two license fees this year. It was claimed that if the new automobile law were signed by the governor, they would be obliged to pay for a new license now and another January 1. This, however, was denied at the Secretary of State's office, where it was explained that motorists whose licenses expire this month will be gainers by the new law, instead of losers.

By the new law all the licenses well be re-issued to date from January I. It is provided, however, that licenses taken out after September I will pay only a pro rata fee. This was taken to mean that licenses renewed before September I would have to pay the full year's rate, and those renewed after September I only a partial rate. It appears, however, that the clause referring to licenses taken after September I would refer only to new cars or new licenses and that no licenses which expire between the enactment of the law and January I need be renewed at all—that the old licenses would be allowed to run until that time when new licenses would be issued all around.

Massachusetts Roads Closed to Motorists

The Selectmen of Williamstown, Mass., have adopted an order closing the Obong roads and the Bee Hill, Torrey, Petersburgh, Stratton. Luce, Hopper and Woodcock roads to automobiles. The order will have to be approved by the Massachusetts Highway Commission before it becomes effective.

Advantages of New Jersey's Coast Boulevard

Residents of New Jersey are very much interested in the projected coast boulevard, which is to run from Sandy Hook on the north to Cape May on the south. The plan has received serious consideration, and is endorsed by Governor Fort and prominent legislators all over the State, and there is every likelihood that it will become an established fact ere long.

Because of the varying nature of the country, New Jersey affords a choice of resorts, or homes, of almost every description. It has three geographical belts, running parallel to each other in general direction from southwest to northeast.

Beginning at Cape May and extending northwesterly to a line drawn through Salem and Long Branch, one finds the low, flat, sandy belt. Next comes the marl belt, containing rich deposits of marl, which makes the soil as fertile as any in the country. This rich, slightly undulating land stretches on to a line extending from Trenton to Raritan Bay.

Northwest of that one strikes the hilly belt, the land gradually rising and becoming more rough in character till the Blue Ridge Mountains are reached. There one enters the picturesque country of the Kittatinny Valley, often called the Switzerland of America.

With the Atlantic Ocean washing the eastern shore line, the Delaware River flowing down the western side and the inland lakes adding their charm, nature could do little more to make variety complete.

In a country of such diversified character one may pick out any kind of a locality for a summer home or for an automobile trip. Thanks to the bill proposed and put through the New Jersey Legislature by Governor John Franklin Fort, it will be possible in a short time

to reach almost any part of the State with speed and comfort, traveling over the finest system of roads in America.

This bill provides for a complete system of the best macadam roads, connecting all the country seats with each other. Such roads as already exist will be taken over by the State and improved. Any links that may be missing from the chain will be completed by new sections, and, to crown the whole project, the great ocean boulevard, from the Atlantic Highlands to Cape May, will be constructed at a cost of about \$400,000.

It is estimated that to keep this network of roads, aggregating 870 miles, in perfect condition will necessitate an expenditure of \$300 per mile each year, or \$261,000 in all. This will be done by devoting the annual income from automobile license fees to the purpose. In time increase in property values along the route and the subsequent increase of income from taxation will more than make the ocean boulevard and county seat highways self-supporting, it is believed.

This system will open up for the automobiles or horsemen a veritable touring paradise. If he desires to visit the interior country, mountain or seashore, be has only to pick out the route, or, if the fancy seize him, he may travel through all three on the same trip.

Any number of places, attractive because of their pleasant location and surroundings, or famous for their historical interest, are within easy reach. A ride directly across the State takes but a few hours, and a day will suffice to go through it leisurely in the other direction.

As Governor Fort says: "The road from Newton to Paterson and from Newton to Morristown, Somerville and Flemington, and from Newton to Belvidere and thence to Flemington, would pass through a country which, for beauty of scenery, is not surpassed by the most magnificent views in the Berkshire Hills. These roads would give the traveler through New Jersey an extensive run along the sea, and through the hill country it would not be equaled in beauty by the roads of any other State in the Union."

There is an excellent road from Trenton to Jersey City, running through rich farming land, without speaking of the many routes which lead to the shore resorts.

The coast, with its cottages, the finest surf bathing in the world, its yachting and countless other pleasures, will be more than ever the mecca of the tourist. For, threading its way through the whole string of watering places, will run the ocean boulevard.

Beginning at Atlantic Highlands, where steamers from New York land, just inside Sandy Hook, the great highway will extend southward along the coast. Sweeping around the base of the gravel hills and across the northeast portion of Old Monmouth, rich in history and traditions, the route as mapped out passes through the Rumson Neck region. At Seabright the road meets the coast, passing through Low Moor, where are located the fishing camps which supply New York with much oi its sea food. Here the beach rises abruptly and the road is much higher than it is further south.

For the next 100 miles or more the highway is never beyond the reach of tidal water. From Long Branch the road runs through picturesque Elberon to Asbury Park. To this place there is already an excellent highway, which will be widened and graded.

The first stumbling block is met at Ocean Grove, as the church corporation there does not desire to have a thoroughfare through its property. It seems

likely, however, that the objection will be overcome. Otherwise a detour will have to be made.

The highway then runs directly from Bradley Beach to the State camp ground at Sea Girt. All the way from Long Branch to this point, sixteen miles, the road is in sight of the sea, and passes through some of the most popular summer residential sections in the State.

To avoid the rifle range at Sea Girt the road will bear sharply to the west, cutting inland through Manasquan to Lakewood. This takes the tourist through the celebrated "Pines," claimed to be the most healthful and invigorating spot in the State.

Leaving Lakewood, the road extends through Silverton to Toms River. This stretch will have to be entirely rebuilt, as it does not form part of the good roads system. From Toms River the road curves gracefully to Tuckerton.

On the east are the broad waters of Barnegat Bay, dotted with all manner of sailing and other craft, and on the west are miles of pine trees extending inland further than the eye can reach.

Leaving Tuckerton, the road again curves inland around the shore of Great Bay to New Gretna. This part of the bay is most delightful, skirting mile after mile of fragrant cedar groves. Just beyond Tuckerton the road crosses the line which formerly divided the provinces of East and West Jersey. At a point opposite Chestnut Neck the Mullica River is crossed. The road then extends to Absecon, where Atlantic City comes in sight.

From Absecon the road goes through Pleasantville to Somers Point. A bridge will have to be built here, crossing over Great Egg Harbor to Beasly's Point. This is one of the most famous fishing places on the New Jersey coast.

The boulevard will then follow the

present State road to Cape May Courthouse, from which it continues on to Cape May city. This gives a pleasant trip of thirty miles through quaint old Cape May County. The highway is almost as level as a billiard table all the way and is bordered by stretches of excellent farm land. Here and there are outcroppings of sand, with patches of woodlands and bits of cedar swamp. Shailow bays and estuaries are numerous, cutting up the shore into the chains of islands characteristic of the Atlantic Coast. At Cape May the road runs

along the beach to Cape May Point, terminating at the mouth of Delaware Bay.

Such is the route of the new boulevard which is expected to attract additional thousands of motorists to the New Jersey coast and to give that portion of the State an unprecedented boom in cottage building. Governor Fort predicts that fifty years from now visitors will find practically an unbroken city along the coast, and living in it 2,500,-000 people during at least three months of the year.

Making Roads Automobile Proof

The process of using a refined tar for the prevention of the formation of dust on macadam roads under automobile traffic has passed the debatable stage, and the only difference among road engineers now is as to some of the refinements of the process. Machines are now being imported for the spreading of the tar, so as to save labor, and various counties and cities no doubt soon will be in possession of complete tarring apparatus.

Another field of study is presented in the choice of tar, and several engineers have published careful studies based on analysis of the proportion of bitumen in the material for the purpose of discovering which grade gives the best service under the varying conditions.

In this country, as elsewhere, it was early demonstrated that ordinary crude tar was not satisfactory for use on roads because it varied so much in chemical character that uniformity of results could not be guaranteed. Tar taken from the same gas works would vary widely from day to day. A certain amount of refining was necessary, and this prepared coal tar has been stanlardized in America under the name of Tarvia, and the use of tar under this name frees the engineers from all trou-

ble and responsibility in connection with difficult commercial analysis of the material.

For different types of work the density of the tarvia necessarily varies according to the size of the voids in the macadam. The mission of the tarvia is to fill all voids and solidify thereto a plastic, rubber-like consistency, in which the stone is so firmly embedded that the automobile tires can not tear it loose.

In building a new road the voids will, of course, be very large, and accordingly the very dense Tarvia X is used, a material of such weight and density that it will hold the stone and bridge the large spaces in the material.

For a road which is being re-surfaced with fine stone screenings, a tarvia of light consistency, namely, Tarvia A, is used. It will penetrate readily into the smaller interstices of the screenings, where Tarvia X could not be made to percolate.

For an old road, where the interstices have been filled tight with dust, a still lighter grade of tarvia will be required, the material called Tarvia B, which can be used from a modified sprinkling cart and will soak into the fine pores of such a road and make a strong, durable bond.

Tarvia B is, of course, the least ex-

pensive of the three applications. It requires only to be spread over the road like an oil, and expensive apparatus is not necessary. Tarvia A, used with a new top layer of stone screenings, is more effective because it goes deeper. Such application requires a steam roller and apparatus for heating as well as spreading the tarvia. It makes, however, a beautiful, smooth, durable road, which resembles a sheet asphalt pavement in its appearance.

The Tarvia X treatment introduces the tarvia into the 1½-inch stone, and is still more thorough than the Tarvia A treatment. A road built with Tarvia X will retain its evenness of contour, regardless of the wear on the top surface, and the maintenance of the road will for many years be confined solely to the top coat of fine screenings. The durability

of this top coat can also be greatly prolonged by the use of Tarvia A.

The ideal method, therefore, in which to build an economical macadam road is to use Tarvia X in the construction, and when, after a year or two, the surface begins to wear, to repair it with screenings combined with Tarvia A.

Tarvia will make the road semiplastic, so that it yields slightly under the hammering of traffic instead of pulverizing as does the brittle plain macadam surface. In consequence the material that is put on the road stays there, being never pulverized by travel nor washed away by rain. The net result is large economies in maintenance.

It has been repeatedly demonstrated that it is actually cheaper to maintain a dustless tarviated road than a dusty untreated one.

Ideal and Scenic Tours

The A. C. A. "Scenic Tour" and "The Ideal Tour" pamphlets are now completed, and motorists may procure free copies of same at the Bureau of Tours of the Automobile Club of America, 54th Street, west of Broadway.

The Scenic Tour is outside of the better known and conventional lines of travel, and offers the most diversified scenic views, good touring roads and first-class hotels for the comfort and enjoyment of the tourist. A brief itinerary may be summarized as follows:

erary may be summarized as i	ionows:
New York to Delaware Water Gap	82 I miles
Delaware Water Gap to Bing-	02.103
hamton, N. Y	108.6 miles
Binghamton to Watkins Glen	85.3 miles
Watkins Glenn to Cooperstown	140. miles
Cooperstown to Saratoga Spgs.	82.6 miles
Cooperstown to Lake George	111.3 miles
Lake George to Bluff Point	108.8 miles
Crossing Lake Champlain to	
Burlington, Vt., to Manches-	
ter. Vt	107.8 miles
Manchester, Vt., to Waterbury,	
Conn	137.9 miles
Waterbury to New York	

The "Ideal Tour" is a trip of 1,000 miles, so arranged that the motorist sees the best of New England scenery, travels over the best of New England roads, and stops at the best of New England hotels.

A brief itinerary of this tour may be summarized as follows:

New York to Waterbury	92 miles
Waterbury to Stockbridge and	
Lenox	73 miles
Stockbridge to Manchester	64 miles
Manchester to Sunapee Lake,	
N. H	74 miles
Sunapee Lake to Bretton Woods	90 miles
Bretton Woods to Poland	
Spring, Me	82 miles
Poland Spring to Portsmouth	81 miles
Portsmouth to Boston	68 miles
Boston to Waterbury	152 miles
Waterbury to New York, via	
Briarcliff Manor	102 miles

Free copies of above tours will be mailed free to any motorist desiring same, upon application to the Automobile Club of America.

PREVENTIVES AND REMEDIES

Very few workmen or private owners of cars know the correct method of reaming out gasolene jets when the size of the orifice has to be increased. Even in the testing shop a certain sized watchmaker's broach or reamer is pushed in from the bottom side of the jet, the hole being enlarged by rotating the jet or the reamer while steady pressure is put on the end. By practice the amount which the reamer should protrude through the top of the jet is known, and this amount is usually measured with a rule. The reamer being tapered, the hole it makes is likewise tapered. and has a larger diameter at the lower than the upper part of the orifice. Hence if any grit or foreign matter should pass from the float chamber to the jet it may be large enough to enter the lower part of the hole but too large to pass out at the The suction of the engine has the effect of making the obstruction more solid, and it is then necessary to take out the jet and clear it. If the reamer be worked from the top side of the jet then the largest part of the hole is formed at the top, and if any obstruction should pass into the lower or smaller part of the hole it can pass right through the orifice and so give no trouble.

Before starting on a tour the motorist would do well to make a systematic survey of every item usually carried. Every broken, or otherwise useless thing, which has been thrust back on previous occasions in the tool drawers, should be rejected. while in their place the available space should be filled up with new fittings, each one of which has some specific purpose that may be useful. Things which can be purchased nearly anywhere nowadays, such as sparking plugs, oil, and grease, need not be carried in such profusion as formerly, but parts which are specially adapted as spares to the mechanism of the car-valves with their springs, ignition fittings, and duplicates of all delicate parts, which previous experience has proved as being the most likely to need renewal by the roadside-should not fail to be included in the kit. Too much importance cannot be paid to the adequate supply of convenient spanners to fit every bolt and nut on the car, and, moreover, these should be in duplicate, for the reason that it frequently happens that on trying to unscrew a nut the bolt turns round as well, and unless one has a second spanner to hold the head of the bolt no amount of turning will. suffice to withdraw the nut.

To attempt to inflate a tire with a poor pump is a very trying experience. What is the good of carrying a brazen instrument of torture, which only by the sweat of the brows of all the males of the party can just be induced to inflate a tire to about 30 pounds? Such a pump leads to trouble; it makes even the most energetic and usually truthful man declare that a flabby tire is "hard enough."

When a brake approaches the limit allowed for adjustment, have the blocks renewed.

Never allow a tire valve to remain uncovered; if the cap be lost, secure by a piece of leather or rag and a rubber band or string round the stem. If dirt is allowed to enter, a leaky valve is bound to result.

While some motorists may dislike the idea of wearing goggles, because of their unbecoming features, it is a very poor idea to drive without them. If they are not used dust is sure to get in the eyes, and in time the grit will cause irritation and serious trouble is liable to result.

Valve springs, like other parts of a motor, will not remain the same for ever. After all methods have been tried and the motor still lacks its usual power, a new set of springs will usually remedy the trouble.

A good plan to prevent skidding when turning sharp corners is to check the speed of the car by closing the throttle and applying the brake if necessary before reaching the bend; then release the brake and open the throttle a little as the car starts to round the corner, thus making the motor pull the car instead of allowing it to coast round with the brakes on.

The man with the "tinkeritis" habit is, as a rule, unnecessarily deprived of a great deal of his car's service.

C L U B S

Automobile Club of Springfield, Mass., has been informed by the Chief of Police of that city that a number of drivers whose cars have displayed Connecticut registration tags have been exceeding the speed limits in that city. F. B. Strout, secretary of the Springfield organization, has written to A. G. Hinckley, secretary of the Automobile Club of Hartford, asking him to advise members of his club of the complaint of the Springfield Chief of Police and requesting that Hartford motorists drive their cars with due regard for the legal rate of speed when in Springfield.

At a meeting of the Board of Trustees of the New Jersey Automobile and Motor Club last week, thirty-five new active members were elected. At the same meeting four associate members were transferred to the active list.

Members of the Automobile Club of America have been advised by the Bureau of Tours that a speed trap is located on High Street in the town of Newbury. Mass., between Marlboro Street, Newburyport, and the Parker River bridge. The notice also says: "At least forty people have been fined within the last week. Please bear in mind that this trap is in Newbury, not Newburyport. There is a double turn in the road at the lower green in Newbury, and under the new law eight miles an hour is the limit on a turn where the view is obstructed. A trap has been located at this double turn. Under this law most of the people have been caught.'

During the month of July forty-six new names were added to the membership list of the Automobile Club of Buffalo, bringing the total number up to 1,800.

A contribution of \$5,000 toward the construction of a new road connecting Nice with Monaco has been made by the Touring Club of France. Starting from the Boulevard Carnot at Nice, the road will ascend toward the Col de Villefranche and the Col du Caire. Thence, passing above Beaulieu, on the flank of the mountain, the road will rise to the foot of the village of Eze and follow the existing road from that

place to Saint Laurent to the point where the highway commences to descend in zigzags. It will extend toward the Pissarelles precipices, follow the road from Cap d'Ail to La Turbie, and thus reach the extremity of Boulevard Albert I. at Monaco. The creation of this road through a most picturesque district will have the double advantage of offering an extremely agreeable excursion for tourists and of relieving the traffic on the lower road beside the sea. The total cost of the road is estimated at \$600,000, which will be furnished by contributions from the Ministries of the Interior and Public Works, the department of the Alpes Maritimes, the town of Nice, and the Touring Club of France.

The Automobile Club of Buffalo has issued the following notice to its members: "A speed trap is reported in operation on the Buffalo Road about a mile from Rochester city line. A plain clothes man using a motorcycle and an individual terming himself 'judge' are on the ground performing the hold-ups, and immediate trials are suggested by them and a fine of \$10 is im-Leaving Rochester on Sunday morning. August 1. one of our members was passing over this road at a speed of twenty-two miles an hour. At the subway he was stopped and held up for \$10. He also reported that he had learned that a number of others suffered a similar fate during the day."

In a recent bulletin of the Automobile Club of Philadelphia mention is made of speed traps at Middleton and Jenkinstown, Pa.; Edinburg, Metuchen, Mercerville, Belmar, Long Branch and White House, N. J.; Staten Island, N. Y., and Swampscott, Mass.

The Automobile Club of America's annex building, which is to be erected in West Fifty-fifth street, behind the present structure in West Fifty-fourth street, is to be twelve stories high. The annex will be erected on a plot 91.8 feet on the street and 100 feet deep. The cost is estimated at \$350,000, and the materials to be used will be granite, with brick, limestone and terra cotta. The three top floors will be fitted up as machine shops. It is planned to have the new building ready for occupancy in June, 1010.

AUTOMOBILE SPORTS

The New Jersey Automobile and Motor Club, of Newark, is arranging a roadability run, to be held on Sunday, Aug. 15. Bellewood Park, fifty-two and one-half miles from Newark, is to be the destination, and Chairman Bonnell has received many inquiries regarding the route to be followed. The committee has secured a silver loving cup which will be presented to the member whose running time from Newark is nearest to the secret time schedule prepared in advance by Chairman Bonnell and his associates. The committee will figure the time so that none of the drivers will have to exceed the speed limits of any of the towns and cities through which they pass and the club members who take part in the run will be asked to observe the speed limits on the The committee is planning to have the drivers leave their homes or the club house at East Park Street and Park Place. Newark, about 9 o'clock on Sunday morning and arrive at Bellewood Park about 12 o'clock, so that dinner may be served to the party promptly at 12:30 o'clock. The officials of the Lehigh Valley Railroad have given special permission for the clubmen to drive their cars inside Bellewood Park, a privilege rarely accorded motorists. The route selected by the committee is through Irvington, Springfield, Plainfield, Dunellen, Bound Brook, Somerville, Pluckamin, North Branch, Clinton, Perryville and Pattenburg to Bellewood.

So successful was the sociability contest recently conducted by the Motor Club of Harrisburg, that another similar event is to be held on August 27. The participants will drive to a point near Lebanon and will probably stop for lunch at a hotel near Annville. The contest part of the run will likely be confined to the outgoing trip, so the drivers can make the return trip as they wish. There are to be three prizes for the drivers who come the nearest to the secret time schedule, which will be made up with the running time figured between fourteen and seventeen miles an hour.

At a recent meeting of the Washington (D. C.) Chamber of Commerce, it was decided that it would donate a solid silver punch bowl, costing \$600, as the grand

prize in the automobile floral parade to be held in the national capital on September 30. The prize is the most elaborate and expensive that has ever been given in a similar event in Washington, and was selected after the Board of Directors had discussed it for nearly an hour. The committee on prizes, which reported to the board, was composed of A. Leftwich Sinclair, T. C. Dulin, and W. E. Corby.

A number of motorists of Newark, Plainfield and Somerville drove their cars in an automobile parade at a carnival held in Flemington, N. J., on Thursday night, Aug. 5. The Flemington Automobile Club opened its new quarters on that day with a reception to the visiting motorists.

A road race, to be held annually between Kansas City and St. Louis, is being talked of by the Automobile Club of Jefferson City, Mo.

Denver motorists are planning to hold a run to Cheyenne, Wyo., where a race meet will be conducted on August 17, under the auspices of the Cheyenne Motor Club. A number of cars owned by Denverites are entered in the 200-mile race, one of the principal events on the program, and as a result interest in the Colorado city is very keen.

The Automobile Club of South Africa recently conducted a five-mile race on the Main Reef Road at Johannesburg, in which twenty-eight cars took part. First place was won by a 15 hp. Clement-Talbot. It is proposed to hold another race of a similar nature in the near future.

A race for small cars, to be held on the Ostend Circuit on September 17, is being organized by the Belgian Automobile Club. The event will be reserved for cars of the type which competed in the similar contest recently held at Boulogne. The circuit, which, starting and finishing at Ostend, takes in Middelkerke. Nieuport and Snaeskerke, measures 33.4 kilometers, and will have to be covered a dozen times, the total distance being thus 250 miles.

HIGHWAYS

Because of its simplicity, its efficiency and cheapness, both in construction and operation, the King split-log drag is destined to come more and more into general use. With the drag properly built and its use well understood, the maintenance of earth roads becomes a simple and inexpensive matter. At the present time there are approximately 2,000,000 miles of earth roads in the United States. Some of the most important of these roads will eventually be improved with stone, gravel and other materials. Many others which are equally important cannot be so improved on account of lack of funds or suitable materials, while still others will not require such treatment because of the light traffic to which they are subjected. For these reasons the majority of roads must be maintained as earth roads for many years to come. This must be done by inexpensive methods, and the split-log drag will be a powerful aid if economy is the criterion demanded. Conditions are so varied in different localities, however, that it is quite impossible to lay down specific rules. Certain sections of a roadway will require more attention than others, because of steep grades, wet weather, springs, soil conditions, exposure to sun and wind, washes, etc. Clay roads under persistent dragging frequently become too high in the center. This may be corrected by dragging the earth toward the center of the road twice and away from it once. In six counties in Kansas in 1906 the cost of maintaing ordinary earth roads without the aid of the split-log drag averaged \$42.50 a mile. These figures were secured from official records of the counties. Other figures furnished have revealed the wonders of this simple device. In one instance the least expense per mile per annum for the split-log dragging was \$1.50, the greatest a little over \$6, and the average expense per mile for five and one-half miles, a little over \$3. In forty years it has never been freer from mud and dust, despite the fact that during the season extreme weather conditions have prevailed. A township in Iowa had been making an investigation of the split-log drag and had been experimenting with it for a year on twenty-eight miles of highway. An agent was sent to secure information and it was reported that, although the town board had paid the cost of making the drags and of hiring men to operate them, the total expense for one year averaged but \$2.40 a mile, and the roads were reported to have been "like a race track" the greater portion of the year.

An old and unused law on the statute books of Missouri, requiring that road overseers shall erect and keep standing finger-boards or sign-boards at all principal cross-roads, has been resurrected by the Good Roads Committee of the St. Joseph (Mo.) Automobile Club. The existence of this law has been called to the attention of the Buchanan County Court, and its execution there and in all parts of the State is hoped for by the motorists of St. Joseph and vicinity. The officials have issued instructions to the highway commissioners to see that road overseers observe the mandates of the statute. The law reads as follows: "Every overseer shall erect and keep a post at every fork or cross-road in his district that would likely mislead, to which shall be affixed a finger-board containing a legible inscription directing the way and denoting the distance to the next important place on the road, for which he shall be allowed not more that \$1. And it shall be the duty of every overseer to keep all roads in his district clear of all obstructions and cause to be cut down and removed, between the 15th of July and the 15th of August of each year, all weeds or other obstructions calculated to impede or interrupt travel thereon."

The automobile clubs of Portland, Ore, and Seattle, Wash., have evolved a novel plan for the erection of signboards on the highways connecting these cities, the novelty lying in the method of dividing the burden of the work. The location of the guideposts will be indicated by certain numbers on a chart of the route, and cor responding numbers will be placed in a box before the cars start for Seattle. Each entrant in the run will draw a number from the box, and it will fall to his lot to erect the post indicated by the number he may draw.

In Ontonagon County, Mich., a tax of \$20,-000 has been levied for road building.

AERONAUTICS

Being desirous of doing what he can to encourage American aeronauts and inventors to greater efforts in the development of human flight, Frank S. Doubleday, president of the Doubleday, Page Publishing Co., of New York, has decided to offer a valuable trophy, to be competed for in this country within the next year. The order for the trophy has been given to the Tiffany Company, and the conditions of the competition will be announced in a few days. Mr. Doubleday said he was not yet prepared to state just what sort of flights would be necessary to win the trophy, but that the matter would be taken up with the Aero Club of America, under whose official control the competition will take place. It is understood that the trophy will cost \$1,000, or more, and that it is the purpose of the donor to make the competition such as will be best calculated to bring out those qualities in the contesting machines which tend toward practical utility. The trophy will be offered only for motor driven airships and flying machines, and it is understood that it will be for a seven days' competition, the winner being the pilot who has shown the best records during that period. Mr. Doubleday decided to offer the trophy after talking with Mr. Glenn H. Curtiss and seeing one of his best flights at Mineola..

The Signal Corps of the United States Army has decided to permit the public to use the field where its new Wright aeroplane is to be tested. Any inventor who has an aeroplane or flying machine has permission to take it out on this field, near College Park, Md., and make flights, provided the Wright machine is not being used. It is expected that the offer will prove a boon to inventors. As the Signal Corps has not spent the money given it by the Board of Fortifications and Supplies to purchase the A. M. Herring machine, it is possible that some lucky inventor may yet provide the government with an aeroplane to be purchased from this fund.

Count von Zeppelin began his studies in aerial flight when he was only eighteen years of age, and his active experiments when he was close to fifty-four. His first airship was tested in 1900, near Friederich-shafen, and resulted in failure on two trial trips out of three. Zeppelin undertook to carry on the tests in 1901, but without success, and the airship experiment was apparently a total failure. It was his fifth balloon which at last "made good" for Zeppelin and made triumphant his unwearied faith.

September 18 to October 3 are the dates set for the International Aeronautical Exposition, to be held in Paris. It is hoped that every branch of aerial locomotion will be represented at the exhibition, which will be held in the Grand Palais. One of the most interesting features will be a display of machines which have been successfully used in trials and contests during the year. One section of the exhibition will be devoted to birds and winged insects, where the formation and action of the wings, etc., will be illustrated.

The German Airship Dockyard Company, which has just been formed in Berlin, is acquiring a plot of land having an area of about 800 acres in the neighborhood of the German capital to serve as an airship dockyard. On it will be built sheds, a hydrogen gas plant, and other requisites for the ascent, landing, and repair of airships.

M. J. Chantraine, of Cortenburg, near Brussels, has recently designed and patented a novel form of flying machine. It comprises a large circular plane with a platform at the front carrying two propelling screws, the whole being arranged so that the center of gravity is in the same The large plane is horizontal plane. formed of a circular bamboo frame, over which fabric is stretched, and forms a parachute during descent. The motor employed works on the two-cycle system; it is of the single-cylinder two-piston type, movable in opposite directions and balanced so as to produce no turning moment in the machine.

The Australian Minister of Defence is offering a prize of \$25,000 for the invention of an aeroplane suitable for Australian defence purposes.

City Streets and the Horse Nuisance

"The good roads question is largely a local one, and the local situation is best indicated by the fact that the city of New York, which covers 327 square miles, has 5,040 miles of streets, and which, if placed in a straight line, would reach to San Francisco and half way back again, and that it is possible to go over forty miles in a straight line without leaving New York City," says Gen. John T. Cutting, the well-known New York tradesman.

"These 5,040 miles of streets are of all types, some of them are merely dirt roads, as laid out by our forefathers, and possibly by the aborigines, and yet these dirt roads might be improved without any great expense by adopting the petrolithic system, which is the name given to bituminous concrete in California, the system merely consisting of plowing and harrowing a dirt road, and then first sprinkling it with water, then thoroughly saturating it with asphalt and tamping it and rolling it.

"Another old type of road, which is almost extinct in New York, is what we call a cobblestone road, cobblestones being really large pebbles, found in watercourses, although many persons erroneously call all stone pavements cobblestones.

"Another common type of roadway in New York is the Belgian block, somewhat like the Russ pavement, used here in the early sixties, and the more commonly used latter day granite pavements laid on a concrete foundation.

"Sheet asphalt, largely used, comes next, closely followed by cone pressed asphalt blocks, wood blocks and brick.

"The macadam roads of New York city must be regarded as a bad element in the present motoring conditions. They are very dusty in dry weather, or muddy in wet weather, and the only re-

lief for both of these nuisances is to keep them well oiled, which our local authorities do not care to do, for some unknown reasons. Macadam roads are of no use at all within the confines of the city, because macadam was originally intended to be used in long stretches between towns, and isolated parts of the country, which were not built up. The present day macadam construction is not fit for automobiles, because it is not really a stone road; various binders, loam and sand are used between the courses, and veneered on the surface with gravel, which soon wears loose and flies away. The only remedy then being a bituminous surface.

"Some day in the very near future we expect our good common council to pass an ordinance forbidding the use of any building south of Central Park for residences, so that the whole lower part of New York city will be devoted to business buildings, and then there will be no residential buildings south of Fiftyninth street. The next ordinance to be passed then will be one forbidding the use of horses in that territory, abolishing the use of 127,000 horses and their 12,000 stables in the lower part of New York City. Then will come an era of ciean and dustless pavements, smooth and noiseless, for rubber-tired vehicles. because there will be no further need of stone pavements to give horses traction.

"I believe the coming solutions of New York's good roads problem in New York City will be the use of iron cross girders on the streets, to which will be bolted and rivetted heavy plates of boiler iron. These can be readily replaced when damaged, and will form the perfect, ideal road of the future, because they will be smooth and jointless from curb to curb, and will have the proper crown to shed water, and with these constructions will come improved daily methods of handling waste, rubbish and thousands of tons of horse manure, ashes and earth. Coal will also then be handled in sealed receptacles.

"What we need in New York City is a good roads association, such as the wheelmen and the road drivers of Brooklyn and New York had in the early bicycle days. The local good roads association could have branches in all the five boroughs of the city, and thus keep in close touch with the local situation and the municipal authorities. The results of the personal and political pull from the united efforts of these associations, embracing all classes of road users, would be surprising, and the public would ultimately get the benefit of good roads."

Do Three Times as Much as Horse-Drawn Vehicles

The gasolene wagon and the one drawn by real horsepower are in a race for the work of carrying the mail in Indianapolis. The Indianapolis post office, which, on July 1, increased its automobile delivery and collection equipment from two to three automobiles, has received a report covering their daily work. It shows that the wagons are covering between fifty-two and sixty-four miles a day, and it is estimated that each of them is doing three times the amount of work done by a horse wagon.

The record of the work accomplished daily between 7 and 8 in the morning, shows that they carry out seventy-five extra bundles to places where they can be called for by the carriers on their rounds; that they make thirty special deliveries of mail to factories on the outskirts of the city that are difficult to reach, and the mail for which is heavy. In addition, on these early morning trips they make collections from seventy-three boxes.

On the 10 o'clock morning delivery they make seventy more deliveries of mail to large concerns, and they collect from 168 boxes.

On the third trip, which starts at about 5 o'clock in the afternoon, they pick up mail from 441 boxes and hurry it into the post office.

"When one looks at the cost of operating these automobiles," said Assistant Postmaster John E. Schideler, "it seems very high, but I find that they do about three times as much as the horse wagon can do, and they certainly make our service much speedier than would be possible with the slower wagons.

"The cost seems to be about the same as keeping three wagons and three carriers at work, though it may be found to be a little less. We have already cut off three horse wagons and are making a very careful inspection now of the relative costs and services of the two kinds of wagons."

The cars used are Overlands.

Working on Long Island Roads

Automobilists who have not visited Long Island recently will be surprised at the improved condition of the highways leading to the picturesque island. The Highway Department, under the supervision of Superintendent P. E. Leahy, has been making

vast improvement to the roads throughout Queens during the past year. Before the close of next fall not only will the macadam roads of the borough have been thoroughly resurfaced, but many thoroughfares will have been repaved with Belgian blocks and asphalt.

Government to Test Autos for Dispatch-Carrying

Not to be outdone by the foreign governments in seeking the greatest results from experiments in navigation and the practical adoption of the high-class automobile for purposes of warfare, the United States government is pushing every advantage at its command to solve the air problem and minimize the dangers in utilizing the motor car in times of peril to the nation. Plans have been perfected at Washington for exhaustive tests in the use of the automobile in dispatch service.

On the 18th of this month the first "transcontinental" organized war ever intrusted with a military mission embracing practical road work and official dispatch-bearing features will leave New York bound for San Francisco.

Major General Leonard A. Wood, commanding the Department of the East, has prepared an official dispatch to be delivered to Major General John F. Weston, commander of the Department of California, which is to be carried across the continent in an automobile by a military man, who will endeavor to overcome numerous obstacles—constructive, from a military standpoint—adhere to a fixed running schedule and visit such military posts on the long transcontinental route as the courier in charge of the expedition may select to include in his itinerary.

M. E. Parrott, of Poughkeepsie, a private in the New York State National Guard, a trained soldier, enthusiastic automobile tourist and a graduate of a military school that made a specialty of training men for large military operations in the field, has been appointed to bear the dispatch from General Wood to General Weston.

The machines selected for the test is the Mitchell Ranger, a four-cylinder Mitchell touring car, the first 1910 model turned out at the Racine factory, under the personal supervision of Designer Bate. The car will have no special mechanical equipment, the motor and all parts of the frame, axles, wheels, springs, etc., being the same as the Mitchell Motor Car Company will supply for all of its 1910 output. In the tonneau, however, will be carried shelter tents and sleeping paraphernalia for Private Parrott, his driver and the remainder of the khaki-clad detail assigned to the car.

The Mitchell Ranger, in the estimation of the trained soldiers who will make this long trip, is especially adapted to the diversified highways and trails that will be used. With its clearance, roadability and time-tried motor and braking features, the dispatch car may be depended upon to go through with a "perfect score" each day.

Specifications submitted to General Wood for the motor car to be used in making this memorable test provide for a modest legend to be painted on the bonnet of the "war car" briefly stating its mission.

Private Parrott has elected to wear the regulation khaki uniform of the army service, and all who travel with him will be similarly attired. The official driver of the Mitchell Ranger will be Frank X. Zirbes, well known as the pilot of the Mitchell car in 1908 "around the clock" endurance race at Milwaukee, Wis., and other big events, who will hold the wheel of the car from New York to San Francisco.

Private Parrott will start from Gozernor's Island in New York City and follow in a general way the route taken two years ago by the New York-Paris racers.

It is not unlikely that the Mitchell Ranger will make a few detours in order to report at the most prominent military posts slightly off the route.

A Test That Meant Something

Remarkable wearing qualities marked the showing of Ajax tires in the recent Glidden tour. Four of the contestants carried Ajax equipment—the two Maxwells and the team of Brush runabouts. The drivers of these cars were delighted with the way the tires stood the tests.

The Maxwells were driven from the Tarrytown, N. Y., factory all the way to Detroit, prior to the start of the tour, and then without change of tires, started upon the long trip westward. They reached Denver (a distance of 2,700 miles) with Tarrytown air in the tubes, having experienced no punctures or trouble of any kind. On the return trip

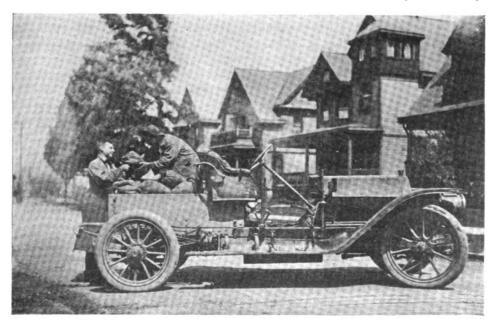
from Denver to Kansas City each of the cars had one small puncture, the casings, which were of the new Ajax heavy non-skid type, remaining in excellent condition.

The Brush car, driven by Huss, finished the tour with Detroit air in two of its casings, having met with only two punctures after reaching Minneapolis. Tinkle, in the other Brush, had only one small cut in one shoe to bother him, his remaining tires carrying their original inflation throughout.

Owing to this splendid showing, the manufacturers of the Brush runabout have decided to fit their entire 1910 output with Ajax tires.

Testing Cars With Sand as Ballast

It is scarcely necessary now to enter Stearns cars in a reliability contest, so thoroughly are they being tested under the new method which was recently instituted at the Stearns factory in Cleveland. The plan is a simple one. It consists of loading 800 to 1,000 pounds of wet sand, depending upon the model that is to be tested, upon the car, and sending it at a high speed for 150



LONDING THE CAR WITH WET SAND



FRANK LELAND GETTING A TESTER'S REPORT

miles across country, reporting midway to a checking station in charge of Frank Leland, the well-known Stearns driver.

A farm house located about sixty miles from the factory is being used by Leland for this work, and here are stored extra gasolene, oil, tires, etc., thus putting the testers in touch with a supply station many miles away from the factory.

The weight of sand carried in the cars is equal to the maximum passenger load, with the difference that the wet sand is a dead load, not easing the car in any wav over the rough country roads. It is the belief of F. B. Stearns that every car while being tested should be given even rougher work than it would receive in the hands of users, and in building up this system of testing, he has given his personal attention to the work.

Maxwell-Briscoe Adds a Foundry

The Maxwell-Briscoe Motor Company has begun work on new buildings in its Rand Drill property at Tarrytown, N. Y., and the foundry will be ready September 1, to employ 100 men.

The addition is being built north of the Rand Drill shops and the first section will be 70x80 feet, and one end will be left for large additions to be built later. The new industry will employ 100 men when in full working order, and its capacity will be seven tons of metal a day. The superintendent for this foundry is now in town getting

everything in shape to open the foundry.

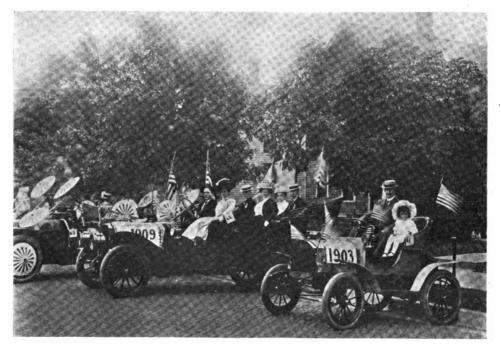
Heretofore the company has purchased its castings, but the business has grown to such an extent that it had to build its own foundry to keep supplied with castings needed for its enormous output.

If the motorist is willing to take a little pains he can reduce very greatly the rate of wear of his trembler points by periodically reversing the direction of current flow through the system.

Why Captain Lewis Was Glad

It is not often that one finds a car of the vintage of 1903 still running and in good order; still more rare is it that the owner of such a car is proud of his antediluvian vehicle, as same ultramodernists would term it. Such an occurrence was noted, however, while the Mitchell jubilee was being held at San vided with signs indicating the vintage of the automobiles. The majority of the machines were tabbed with 1909 signs, but the little 1903 car was much in evidence.

"It hardly seems possible that such strides have been made in the Mitchell output, to say nothing about the auto-



SIX YEARS OF MITCHELL PROGRESS

Jose, Cal., recently. This jubilee, which is an annual affair, indicated ununmistakably that the Racine-made automobile was highly popular on the Pacific Coast. Several hundred loyal owners of Mitchell cars touring from distant points in the State to participate in the big al fresco fete, and the student of automobiles discovered another feature at the gathering. This was the comparatively large number of Mitchell cars listed previous to the 1909.

By a wise provision of the chairman of the jubilee fete, the owners were pro-

mobile itself," remarked Captain William Mitchell Lewis, the general manager of the Mitchell Motor Car Company. "Yet the close followers of the business are aware that we took the pioneer track in the building of mediumpriced cars for the public demand, realizing that machines of this type would be the ones most in demand. At first everybody wanted speed. Then came the safe, sane and conservative epoch, and finally the refinement in cars that has developed the type such as our 1909 and 1010 machines represent."



A WEEKLY JOURNAL DEVOTED TO THE INTERESTS OF AMERICAN AUTOMOBILISTS.

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Three Classes Now. But One Hereafter

It would not be easy to put into fewer words or more emphatically the facts concerning the present status of the motor vehicle than the San Francisco Motor Club has done in a letter addressed to the "Several Boards of Supervisors of the several counties of the State of California."

The letter is at once a statement of facts and an appeal—an appeal for a better understanding between motorists and other road users, whose interests are really one in spite of a once almost universal, but now happily disappearing, tendency to regard them as antagonistic. The salient features of the letter are as follows:

We believe the time has arrived when there can be no further use in disputing the fact that the motor vehicle has come to stay, and is now used by the rich and poor alike as a means of transportation of passengers and freight.

We believe it to be the opportune moment to lend your aid and assistance in harmonizing the farmer, the teamster and the motor vehicle interests and to grant them equal privileges and immunities on the several roads, bridges and streets in the several counties of the State of California.

There can be no question in the minds of those who look into the future that the motor vehicle will finally take the place of the beasts of burden.

The fundamentals of the matter are all set forth here. The motor vehicle has come to stay and is destined to be the universal vehicle, displacing the horsedrawn kind. It is indisputable therefore that the interests of the farmer, the teamster and the motorist, taking the latter as a distinct class, are identical. Each is now entitled to equal privileges and immunities, as the letter states; and when the merger takes place there will, of course, be only one class, so that diverse interests will not have to be catered to. Clearly, therefore, the present task is to harmonize interests of the three existing classes and have them work unitedly for better roads.

A rich reward awaits the communities where this combination of interests is effected and its purposes carried out.

Contests and the Fitness of Cars

It is none too soon to have automobile contests, and especially those held in foreign countries and participated in by American cars, looked after by a body in which automobile manufacturers predominate. If something of the kind had been done years ago the reputation of American racing cars abroad would not have suffered to anything like the extent that has been the case. As it is, they are regarded as being much of a joke, and politeness alone prevents Frenchmen, for example, from expressing their real opinions regarding the matter.

The announcement that the Manufacturers' Contest Association will give careful attention to future contests is, therefore, a very welcome one. That the matter is to be attacked in the proper spirit is evident by the introducory remarks which accompany the announcement. "A lack of proper preparation rather than inferior mechanical excellence can be ascribed as the cause of nearly all the humiliating performances of American built cars when entered in international contests. This condition of chronic unpreparedness can in the case of the American manufacturer be partially ascribed to a lack of attention given to such matters on account of the pressure exerted in other lines directly associated with the producing and commercial ends.

"Many times in the past, particularly in the case of events of national or considerable local importance, insufficient notice as to date and conditions upon which and under which a contest is to be run has been given to those who have been asked to support the event with entries," is the way it is put.

Contests have played an important part in the work of perfecting the motor vehicle and even to-day their usefulness has not gone. As a sporting proposition also, contests must continue to be held, perhaps indefinitely, and this being so, there is every reason why they should be held under proper conditions. The body referred to proposes to see that this is done, first by formulating proper rules, and second, by seeing that cars entered in contests are brought to the starting point ready to do themselves justice.

Such conditions have nearly always prevailed in the contests held abroad, and that is one reason why American cars have always been in the "also ran" class.

TRADE DEPARTMENT

Shipped 131 Cars in One Day

What is believed to be a record for cars of thirty horsepower—a manufacturing, not a racing record—was made by the E-M-F. company on Saturday, July 31. On that day 131 Studebaker E-M-F. "30" touring cars were shipped.

It is not claimed that this was an average day's output, for, as a matter of fact, the daily output is fifty cars a day. Owing to a shortage of bodies, however, the daily average for the past week has been low, and, in order to make up the monthly quota of 1,250 cars, the factory was run overtime Friday night—for the first time in its history—and as the body factory had caught up with its schedule, the big Saturday's output of 131 was the result.

Walter E. Flanders, president and general manager of the E-M-F. company states that, a Studebaker E-M-F.

"30" car requires only ten minutes to assemble. On the Saturday mentioned, less than five minutes was the average time consumed in assembling each car. That's standardization carried to the highest degree of perfection yet attained in the automobile industry.

It is interesting to note that the E-M-F. company was, on August 1, 700 cars ahead of its delivery schedule as laid out at the first of the year. It will be recalled that when the E-M-F. company announced that it would build twelve thousand 30 hp. cars in a year the statement was received with incredulity where it was not ridiculed. The factory is now running at the rate of 15,000 cars a year—counting 300 working days in twelve months.

"This is an all-the-year-round business at last—at least with us," says Flanders.

Magnetos to be Fitted to Low-Priced Cars

"Regarding my recent prediction that the year 1910 will be a magneto year," said J. S. Bretz, of the importing firm that imports the U. & H. Master magneto, "I have this to say further concerning it, that even the low-priced cars of the coming year will fit a magnero as part of the regular equipment or as an option.

The magneto is no longer a marvelous mechanical mystery, and hence many of the makers of this country are doing, as the makers abroad have done for some time, fitting a magneto as the sole source of ignition on low-priced cars, and it is simply superstition, or rather a lack of confidence, that still causes American makers to fit a dual or double system of ignition on any car, and the only reason for their use is for self-starting purposes. As a matter of fact, the added cost and complications are not worth the added conveniences.

"Taking a list of 264 American cars sold for over \$1,500 in 1909, it is to be noted that only thirteen of them did not fit a magneto regularly or without an added charge, and this percentage is so small that it is just about approximately 5 per cent. of the whole, and as an evidence of the trend in 1910. I might mention that the \$1,750 Inter-State car, an Indiana production which is now being shown in New York, uses the U. & II. Master magneto as a part of its regular equipment, thus putting it in competition with the high-priced cars."

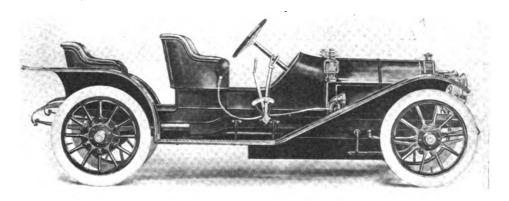
Chalmers-Detroit 1910 Models

Two chassis models will be manufactured by the Chalmers-Detroit Motor Company for 1910. Both models will practically be a continuation of those presented for 1909 with such modifications as a year's experience has shown to be advisable. Various bodies to suit every taste will be furnished to fit, the "30" chassis, while the "40" chassis will be fitted with the touring car, pony tonneau and roadster type bodies.

The "30" chassis will have a motor $4\times4\frac{1}{2}$ inches, an increase of $\frac{1}{8}$ inch

tion of inlet manifold castings in one piece with water jacket side plates is a special feature this year as last. Perhaps the most striking feature to the casual observer is the size of the exhaust manifold and piping to muffler, this, combined with large exhaust valves, being used to eliminate all back pressure and to clear the cylinders promptly of burned gases.

The multiple disc clutch for 1909 has been so successful that it has been retained exactly as it was. The trans-



CHALMERS-DETROIT "30" PONY TONNEAU

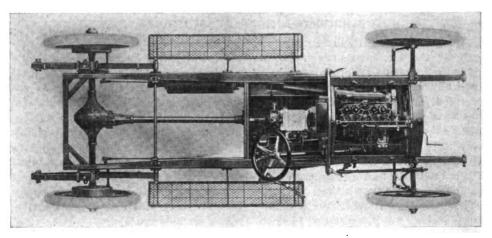
over the bore of the 1909 car. In practically every other respect the motor will be identical with last season's, except that the oil pump has been placed in a more accessible position. The crankshaft is still mounted on two ball bearings, as this has proved during the past season to be wonderfully efficient.

Large inlet valves mounted in the heads of the cylinders, which has been a feature of the Chalmers-Detroit "30" since its inception, is one of the causes which has enabled the motor to develop such remarkably high power on so small a piston displacement.

The circulating positive feed oil system is retained in practically its original form. The Chalmers-Detroit construc-

mission is in a unit with the motor and clutch. Three speeds and reverse are provided with a selective arrangement. The bearings throughout are annular ball. The gears are made of chrome vanadium steel, and treated with the greatest care. The teeth are all heavy pitch and the gears arranged in as compact a manner as possible in order to keep the shafts short.

The final drive takes place through a single steel-bushed, metal-cased universal joint back of the transmission through a propeller shaft surrounded by a torsion sleeve bolted at its rear end to the axle casing. The axle is of the full floating type, annular ball bearings being used throughout including the

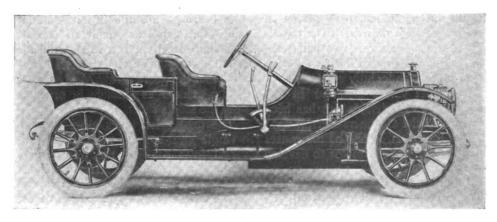


CHASSIS OF THE "30" FROM ABOVE

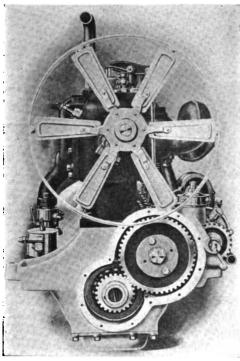
hub bearings. A compact bevel gear differential is used, having four pinions.

Following the usual Chalmers-Detroit practice, one transmission brake is provided immediately behind the gear case actuated by a pedal. One set of internal expanding brakes operated from a side lever are placed directly on the rear wheels. The placing of the foot brake on the transmission has a number of advantages, among which may be mentioned: The increased braking power owing to the drums being geared up from the wheels; simplicity, cleanliness obviating the clogging of the braking toggles which in-

variably occurs in the inside brakes mounted on the wheels; the removal of all superfluous weight from the axle and the consequent saving in tire wear; complete equalization of braking effort between the two wheels independently of the condition of the braking or the road surfaces. As against these advantages, only one imaginary disadvantage can be cited, and that is the transmission of the braking effort through the rear axle driving mechanism. However, this mechanism must be amply strong to allow the motor slipping the rear wheels under all condition of load and road surfaces.



THE "40" ROADSTER



UNIT POWER PLANT OF THE "30"

The braking effort cannot possibly exceed this. In fact, must always remain somewhat less. A brake placed on the transmission can therefore never strain the driving mechanism quite as much as the motor itself is capable of doing.

The steering gear remains exactly as it was during the past year. The shifting mechanism has been improved by inclosing it hermetically in separate casings. The frame has been dropped behind the front seats so as to lower the rear foot boards and the center of gravity of the whole car. The upper and lower flanges have been very much widened to give extreme stiffness, thus relieving the mechanism and body from severe strain.

 $34\times3\frac{1}{2}$ tires are being fitted for 1910, as against $32\times3\frac{1}{2}$ for 1909.

All spring shackles and other working parts are provided with generous

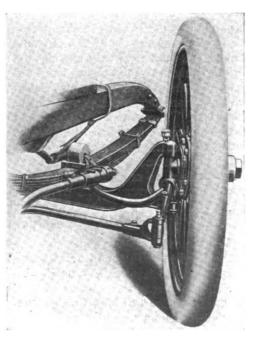
grease cups and remarkable care has been exercised to effectively and neatly lock all running gear nuts and bolts.

The general appearance of the car has been improved by lengthening the wheel base and body. The hood has been raised and lengthened to conform to the increased size of the car. The wheel base is 115 inches as against 110 inches last year, the tread remaining standard, though a 60-inch tread will be optional on cars going to the South.

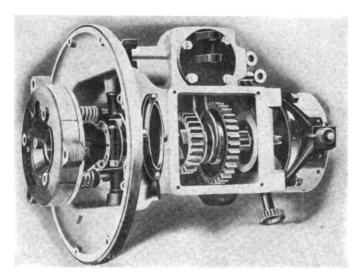
The Chalmers-Detroit "Forty" model will incorporate very few changes mechanically from last year's construction, although the wheel base has been greatly lengthened and the touring body enlarged to make room for seven passengers.

The motor will continue to be 5x4¾, with inlet and exhaust valves all on one side; a three plain-bearing crank-shaft, and a circulating oiling system.

The leather-faced cone clutch itself remains practically unchanged, but the



STEERING CONNECTIONS



CLUTCH AND TRANSMISSION OF THE "30"

operating mechanism has been modified so that the pressure on the pedal required to throw it has been reduced to about one-third of the former pressure.

The gear box has been changed by placing the second motion shaft underneath the through shaft, instead of above it as in the past. The transmission this year will be mounted throughout on annular ball bearings. A double universal joint drive has been retained, the torque being now taken up by a triangular arm instead of a single lever. The rear axle will be of pressed steel, autogenously welded along the neutral axis giving the greatest possible amount of strength for a given weight, so much so that no strut rod is even necessary. The frame has been dropped as in the "30" under the side doors. The upper and lower flanges of the frame have been made very much deeper, following the best European practice. This insures a rigid foundation for the body, preventing the binding of doors, etc., so frequently met with. A honeycombed radiator has been substituted on the "Forty" for one of the vertical tube type. The axle is of the full floating type.

The "30" is furnished in touring car, pony tonneau, and roadster, at \$1,500; as an inside drive coupe for \$2,100, and as a limousine and landaulet for \$2,750. All styles of the "Forty"—touring car, pony tonneau, and roadster are \$2,750, except that \$75 additional is asked for two extra seats in the touring car.

A Fine Opening for Grafters

WILMINGTON, Del., Aug. 9.—Because it opens the door to graft, members of the Delaware Automobile Association object to a resolution adopted by the Levy Court of New Castle County, which offers a reward of \$15 for the arrest and conviction of any person caught violating the automobile law by

running a machine on any of the county roads in excess of twenty miles an haur.

As a result, the association will probably ask the Levy Court to either rescind the resolution or make some arrangement whereby the informers can tell how fast an automobile is going.

Renault Invents Controlling Device

A device for automatically controlling the speed of automobiles has been patented by M. Louis Renault, the famous French manufacturer of cars which bear his name. Like other arrangements of this kind a centrifugal governor enters into the mechanism. This is mounted on a shaft receiving its motion from some rotating portion of the chassis of the car; the governor can be connected up to the throttle or the ignition, or to both, so that when the speed of the vehicle exceeds a predetermined rate the motor is automatically slowed down or stopped.

M. Renault also provides for connecting his arrangement up to the operating mechanism of one of the brakes of the car.

Where the Runabouts Will Be Made

Scores of workmen are engaged in preparing the new Cranston (R. I.) factory of the Maxwell-Briscoe Motor Company for the beginning of manufacturing operations. The policy of the company, to devote a plant to the making of one model also will be carried out in Cranston, where the latest addition to the Maxwell line, the \$850 Model Q will be manufactured.

The Newcastle plant of the company will produce only the \$550 runabouts,

while the four-cylinder touring cars will be built at Tarrytown.

Good Work of the F. & S. Bearings

F. & S. bearings scored heavily in the recent twenty-four hour Brighton Beach race. They were used on four of the eight entries, and out of the first five cars finishing the race they were used on the Rainier, Palmer & Singer, Stearns and Lozier, which finished second, third, fourth and fifth, respectively.

These four cars throughout the whole race were free from bearing troubles.

Bowen Now With Carl H. Page

Frank Bowen, for a number of years in charge of the Agency Department of the Ford company, New York, and later a factor in the marketing of Thomas cars with the Harry S. Houpt Company, has become a member of the Carl H. Page organization, and from August I will be identified with the Chalmers-Detroit interests.

The general offices of the American Distributing Company have been removed from Indianapolis, Ind., to Jackson, Mich.

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INDEX TO ADVERTISERS

Babcock Electric Carriage Co.	
Baker Motor Vehicle Co. 125 Studebaker Automobile Co. 124	
Woods Motor Vehicle Co	
124	
Automobiles (Gasolene)—	
Chaimers-Detroit Chaimers-Detroit Motor Co 1311	ı
EMFEveritt-Metzger-Flanders Co	7
Haynes Automobile Co. 1300 Herreshof:—Harry S. Houpt Co. 1311 Hudgon, Under Matter Co. 1311	'
Inter-State—Inter-State Automobile Co. 1311 Lecomobile—Lecomobile Co. of America. 1311	i
Locomobile-Locomobile Co. of America,	l
Matheson-Matheson Motor Car Co. Maxwell-Briscoe Motor Co. Mischall Motor Car Car Car	
	,
moramora motor Car Co	
Paimer & Singer Mfg. Co	L
Poerless Motor Car Company 1909 A. A. A. Tour 1286 The Pierre-Arrow Motor Car Car Co. Louis Back Com-)
Rehault-Renault Frerer Selling Branch 124 Steame-The F. B. Steame Co.	•
Studebaker Automobile Co	3
Studebaker Automobile Co	l
The state of the s	•
Automobiles (Steam)—	
The White Company	
Lane—Lane Sales Co	1
Batteries-	
Stanley & Patterson	
Stanley & Patterson	7
Bodies-	
Springfield Metal Body Co	
1909 A. A. A. Tour 1277	,
1909 A. A. A. Tour 1277	,
1909 A. A. A. Tour 1277	,
1909 A. A. A. Tour 1277	
1909 A. A. A. Tour 1277 Champagnes— Fommery	
1909 A. A. A. Tour 1277 Champagnes— Foundary	
1909 A. A. A. Tour 1277 Champagnes— Fommery	
Champagnes— Pownery. 1312 Coils— Helase Electric Co.	
Champagnes— Fournery	2
Champagnes— Pownery. 1312 Coils— Helase Electric Co.	2
Champagnes— Fournery	2
Champagnes— Posmery. 1312 Coils— Helase Electric Co. 1250 Dust Preventives— Tarvis-Barrett Mfg. Co. 1250 Electric Welding—	2
Champagnes— Fommery. 1312 Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. 1250 Electric Welding— Standard Welding Co.	2
Champagnes— Fommery. 1312 Coils— Heinze Electric Co. 1250 Electric Welding— Standard Welding Co. Eye Tonic—	2
Champagnes— Fommery. 1312 Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. 1250 Electric Welding— Standard Welding Co.	2
Champagnes— Fommery. 1312 Coils— Helase Electric Co. Dust Preventives— Tarvis-Barrett Mfg. Co. 1250 Electric Welding— Scandard Welding Co. Eye Tonic— Murine Eye Remedy Co.	2
Champagnes— Fommery. 1312 Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. 1250 Electric Welding— Standard Welding Co. Bye Tonic— Murine Bye Remedy Co. Graphits—	?
Champagnes— Fommery. 1312 Coils— Helase Electric Co. Dust Preventives— Tarvis-Barrett Mfg. Co. 1250 Electric Welding— Scandard Welding Co. Eye Tonic— Murine Eye Remedy Co.	?
Champagnes— Fommery. 1312 Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. 1250 Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Graphits— Joseph Dixon Crucible Co. 1310 Ignition Devices—	?
Champagnes— Fommery. 1312 Coils— Helase Electric Co. 1250 Dust Preventives— Tarvia-Barrett Mfg. Co. 1250 Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. 1310 Graphits— Joseph Dixon Crucible Co. 1310 Ignition Devices— A. R. Mosler & Co. 1300	?
1909 A. A. A. Tour 1277 Champagnes— Fommery.	:
1909 A. A. A. Tour 1277 Champagnes— Fommery.	:
1909 A. A. A. Tour 1277 Champagnes— Fommery.	:
1909 A. A. A. Tour 1277 Champagnes— Fommery.	?

Correspondence School of Motor Car Practice	1310
Lamps— Badger Brass Mig. Co. Gray & Davis	1253 1308
Lubricants— Columbia Lubricants Co	1309 1310
Magnetos— Eisemaan Magneto-Laraiette & Co	
Oils— Columbis Lubricants Co	1309
Parts— Billings & Spencer	1310
Photo Engravers— Sterling Engraving Co	1312
Second-Hand Dealers— Times Square Auto Co	1277
Shock Absorbers-	
BI-Cal-Ky Auxiliary Spring Co	1312 1312
Signalling Devices— Nightingale Whistle Co	1310
Spare Wheels— United States Spare Wheel Co	1310
Spark Plugs— A. R. Mosler & Co	1309
Timers— A R. Mosler & Co	1309
Tires— Ajax-Grieb Rubber Co Continental Caoutchouc Co. Diamond Rubber Co 1246 Flak Rubber Co 1246 Morena A Weight	-124/
Republic Rubber Co.	1245 1310
Tire Grips— Weed Chain Tire Grip	1307
Tops— Sprague Umbrella Co	1310
Travel— Detroit & Cleveland Navigation Co	1312
Wind Shields— Sprague Umbrelia Co	1310

News Notes

R. C. Howard, of Atlanta, Ga., will represent the Mitchell line in that city.

The L. Burg Carriage Company, of Dallas City, Ill., has taken up the manufacture of automobiles.

George Pregler, Jr., of Madison, Wis., is building a large garage and repair shop on West Johnson Street.

The Kansas City (Mo.) agency for the Chalmers-Detroit line has been placed with the Midland Motor Car Co.

Jacob Johannes, a St. Paul, Minn., manufacturer, has decided to build automobiles in connection with his buggy business.

The H. H. Babcock and the Watertown (N. Y.) Carriage Companies have been consolidated. In addition to manufacturing carriages they propose to construct automobiles.

The Jewell Motor Car Co., Massillon, O., has leased part of the Banker Brothers Co. block in Baum Street, Pittsburg, and opened a branch there, with Fred W. Fischer as local manager.

The Waukesha Motor Co., of Waukesha, Wis., has awarded contracts for a new \$12,000 plant on St. Paul Avenue, and work has commenced. The building will be 88 x 135 feet in size, of brick and steel construction.

The recently-formed Armstrong Buggycar Co., of Atlanta, Ga., will manufacture commercial automobiles and high-wheel buggy automobiles. The firm plans to erect a two-story factory of fire-proof construction, containing 25,000 square feet of floor space.

Small cars have no doubt found quite a formidable opponent in the Maxwell 22 hp. Model Q. which has been quite successful so far in the contests it has entered in. Only a short time ago, in the annual hill climb held at Ossining under the auspices of the Upper Westchester Automobile Club, the little car defeated the entire field of eleven cars. In the Algonquin hill climb the little 22 hp. car defeated everything in its class and repeated the performance in the Richfield Spring hill climb by capturing first and second prizes.



\$1,250 f.o.b. Detroit

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DETROIT, MICH.



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are installed on the highest-powered, highestpriced cars in the world. The best cars are equipped with the best magneto.

Write for detailed data

LAVALETTE & COMPANY
112-114 WEST 42ND STREET, NEW YORK



The Master Magneto!



BOWDEN WIRE

J. S. BRETZ CO. Sole Importers Times Bidg., N. Y.

The A. Elliott Ranney Company, who for years have been identified with the two-cycle Elmore and have this year secured for distribution in the Metropolitan district 400 of the \$900 Hudson "20s," have been forced by the pressure of business to change to great deal larger quarters at 1928 Broadway. There is a big difference between selling seventy-five cars, the allotment previously made by the Elmore company to this territory and 400 machines of a new and popular model.

The recent twenty-four-hour contest at Brighton Beach, which was won by George Robertson and Al. Poole in the 50 hp. Simplex, was another victory for Monogram oil. Throughout the entire twenty-four hours this lubricant kept the big Simplex running in the smoothest manner possible. The same lubricant was used in the Palmer & Singer car, which finished in third place in the twenty-four-hour contest. Ralph De Palma, who, with the Fiat Cyclone made the fastest time of the day in the short distance races, used Monogram oil. The S. P. O. which was second in the Brighton Marathon, was another car lubricated with Monogram.

"We have had a most remarkable demonstration of the value of automobile racing," said Mr. Charles A. Singer, Jr., sales manager of the Palmer & Singer Manufacturing Company. Our Six-Sixty which finished third in the Brighton Beach twenty-four-hour race, did not make a single appeal to the gallery throughout the contest. Its showing was not spectacular in any Lescault and Howard had determined to maintain a steady pace of a mile in 1 minute and this speed almost to the second throughout the twenty-four hours, and the result was that the car finished third without an effort. In spite of this lack of spectacular appeal, we have been simply deluged with telephone and mail inquiries ever since the contest, and the sales of these Six-Sixties have been remarkable to say the least in the last few days."

One of the recent and most important additions to the agency force of the Haynes Automobile Company is Joseph D. Rourk, of 1001 and 1003 Bedford Avenue, Brooklyn, N. Y., who will be the sole representative for the Haynes 1910 in Brooklyn and Long Island. Mr. Rourk is well known in the automobile trade, having been connected with the Cadillac agency in that section since its establishment. That the 1910 Haynes is meeting with the success intended by its makers is already proven by the bona fide contracts taken through the New York office, which represents three-quarters of the output for next season actually sold. The delivery of demonstrators will begin on August 15. This fact, together with the active advertising campaign already begun by the publicity department and the daily booking of orders by the manager of the New York office. E. W.

Headington, through district agent C. H. Hill, proves that the model 19 Haynes for \$2,000, fully equipped, will be a factor next season.

There have been few race meets held this season in which Fisk bolted-on tires were not to be found on the leaders of various events. The latest Fisk performances were on Saturday, August 7. at the Richfield Springs, N. Y., hill climb and in far-off Galveston, Tex. At the former affair, which was honored by the presence of Vice-President Sherman, Wm. Bourque at the wheel of a Knox car, won his class, when he negotiated the 5,000-foot climb in 0.57 1-3. He was also second in the free-for-all, covering the distance in the fast time of 48 seconds flat. Down at Galveston, at the same time. Ferd Belcher, in another Knox equipped with Fisks, made the Texans sit up and take notice, when he won the 50-mile race in the rough, torn-up track. At the Algonquin hill climb, held at Chicago on Thursday, August 5, Al. Denifast time of 51.54. Scoring the majority of his laps faster than a mile-a-minute and an absence of tire troubles were the features of his performance. which was a sensational one, considering the son in a Knox, fitted with Fisk equipment, covered himself with glory. He won both classes. A and B, and in the latter event scored the fastest time of the day made by any stock car, the total time being 53 3-5 seconds for both Phillips and Perry Hill. All of which indicates that Fisks are "going some."

INCORPORATIONS

Columbus, O.—The Cleveland Puncture Proof Tire Co., with \$20,000 capital. Incorporators: J. E. Todd, Cornelius Mead, R. F. Rarey and D. G. Bonham.

Washington, D. C .- The Pittsburg Motor Vehicle Co. Officers. A. C. Moses, president; W. H. Conant. vice-president; H. B. Leary, treasurer, and S. C. Peellee, secretary.

New York, N. Y.—C. F. Splitdorf, with \$500,000 capital, to manufacture ignition apparatus, automobile parts and sundries. Incorporators: C. F. Splitdorf, J. Splitdorf and P. J. W. Kelley.

Indianapolis, Ind.—Parry Auto Co., with \$1,000,-000 capital, to manufacture automobiles. Incorporators: D. M. Parry, M. O. Parry, A. J. Parry. W. D. Oakes and W. C. Teasdale.

Milwaukee, Wis .- Wordingham Mfg. Co., with \$50,000 capital, to manufacture automobile special-Incorporators: W. G. Wordingham, Phil Kennedy and W. R. Greenlaw.

New York, N. Y.—Automobile Rim Securities Co., with \$150,000 capital, to manufacture automobile and vehicle parts and accessories. porators: H. W. Goddard, R. H. Gay and E. Week. Mica Type Magneto for the Asking



Owners of Mueller and Canfield Patents.

'Not an adjustment from start to finish' THANKS TO

MONOGRAM OIL

is the tale of the SIMPLEX which George Robertson drove to victory in the last Brighton Beach 24-Hour Race.

Best For Your Engine

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ACKNOWLEDGED THE WORLD'S STANDARD

The only ignition with an unblemished record for highest efficiency. Over 320,000 in daily use

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Write for booklet describing "Reasons Why the Universal Selection is always the Bosch."

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Silent, Powerful Reliable, Simple Catalog will tell you why. Send for it

LANE SALES COMPANY, 2637 Broadway, New York Cushman Motor Co., 91 Church St., Boston, Mass. AGENCIES Lane Sales Agency, 41 Ivy St., Atlanta, Ga. Lane Steamer Co., 140 Twelfth St., Oakland, Cal.

The 28-30 H. P. MITCHELL, \$1,500

Includes genuine \$150 Splitdorf Magneto (free) and half-inch larger tires than you get with any other car at this price. To have other cars equipped with these tires you must pay \$50 extra. Write for full information to-day.

MITCHELL MOTOR CAR CO. 608 Mitchell Street Racine, Wis.

Mention "Automobile Topics" when writing.

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and are made for clincher or detachable rima.

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Any style of finish desired can be furnished upon application.

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For sale by all dealers in automobile supplies; or sent direct.

The United States Spare Wheel Co. 1923 Ford Bidg., Detroit, Mich., U. S. A.

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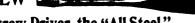
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Republic Rubber Co. - Youngstown, O.

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Screw Driver, the "All Steel"

One Piece Steel Thrusest Sure-Grip Handle Light and Effective THE BILLINGS & SPENCER CO., Hartford, Conn.

DIXON'S MOTOR GRAPHITE

Especially prepared flake graphite for motor lubrication. Increases H. P., saves wear, cuts mileage cost. Get booklet 11 G and sample.

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No guesswork about the Value of the

SPLITDORF MAGNETO

Its absolute Reliability and Efficiency were fully proven in the severest Automobile test ever known---the great 10,000 mile Non-Stop run of the Maxwell car.

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Col. Sprague's New Wind Shields

The Leader in Brass The Surprise in Wood

Get Our Low Prices on Good Onds

THE SPRAGUE UMBRELLA CO., Norwalk, Ohio

Automobile Calendar

August 17.—Automobile Track Race Meet at Cheyenne, Wyo., under direction of the Cheyenne Motor Club.

August 19, 20. 21.—Automobile race meet, Indianapolis Motor Speedway.

August 22.—A series of Speed Trials, under the auspices of the Automobile Club of Frankfort-am-Main.

August 22-29.—Aeroplane Races at Rheims, France, under the auspices of the Aero Club of France.

August 24-27.—Circuit of Ardennes; Liederkerke Cup and Voiturette Race, under the direction of Automobile Club of Belgium.

August 26, 27, 28.—Three Days' Endurance Contest, under the auspices of the Minnesota State Automobile Association.

August 27-28.—Second 24-Hour Race at Brighton Beach, under direction of the Motor Racing Association.

August 29-September 3.—Small Car Competition, under direction Automobile Club of Germnay.

September 4-5.—Mont Ventoux Hill-climbing Contest, under the auspices of the Vanclusien Automobile Club.

September 4-5-6.—Three-day's endurance contest, under the auspices of the Council Bluffs (Ia.) Automobile Club.

September 4-19.—Austrian Aero and Industrial Exhibition at Linz.

September 5.—Aeronautical events at the Indianapolis Motor Speedway grounds.

September 6-11.—Six Days' Motor Carnival, under the auspices of the Lowell (Mass.) Automobile Club.

September 6-11.—Automobile Show in Minneapolis, Minn., in connection with the Minnesota State Fair.

September 8.—Automobile Track Race at Richmond, Va., under the auspices of the Richmond Automobile Club.

September 11-19.—Florio Cup Race, under the auspices of the Automobile Club of Bologne, Italy.

September 12.—Two Automobile Road Races, under the auspices of the Automobile Club of Ostend.

September 15.—Start of Endurance Contest from Denver to Mexico City.

COMPLETE COURSE AUTOMOBILE INSTRUCTION

Invaluable to the owner or prospective owner of a motor car. Practical and to the point.

Send for Prospectus to the

Correspondence School of Motor Car Practice
Tarrytown, N. Y.

September 17.—Race for Light Cars on the Ostend Circuit, under the auspices of the Belgian Automobile Club.

September 18.—Decorated Automobile Parade at Denver, Colo., in connection with the second annual Colorado Inter-State Fair and Exposition.

September 18-October 3.—International Aeronautical Exposition at the Grand Palais, Paris. September 19.—Semmering Hill-climb.

September 21-23.—Good Roads Convention of the American Automobile Association at Cleveland, Ohio.

September 21-29.—Frank A. Munsey reliability tour from Washington to Boston and return.

eptember 24-25.— Twenty-four hour race and short distance events, Indianapolis Motor Speedway.

September 25-October 8.—Aeronautical events in connection with the Hudson-Fulton celebration. New York.

September 30.—Floral Automobile Parade, under direction of the Washington, D. C., Automobile Club.

eptember 30-October 8.—Exhibition of aeronautic motor engines at Paris.

October 2-17.—Aeronautical Salon in the Grand Palais, Paris, France.

October 4.—Dirigible balloon and aeroplane events, under the direction of the Aero Club of St. Louis.

October 7.—Second Annual Stock Chassis Race in Fairmount Park, Philadelphia, under the auspices of the Quaker City Motor Club.

October 8-9.—National automobile race, Indian-

apolis Motor Speedway.

October 16-31.—Automobile Show, to be held in City Park Armory, Dallas, Texas, in connection with the Texas State Fair.

November 6 to 13.—National Automobile Show in Auditorium Armory at Atlanta, Ga. Auspices of National Association of Automobile Manufacturers. Samuel A. Miles and Alfred Reeves, managers, 7 East 42nd Street. New York.

December 29-30.-Fourth Annual Mid-Winter Endurance Contest, under direction of the

Quaker City Motor Club.

December 31-January 7.—New York City, Grand Central Palace; Tenth International Auto-Under management of the mobile Show. American Motor Car Manufacturers' Association with the Importers' Automobile Salon and the Motor and Accessory Manufacturers. Alfred Reeves, general manager, 505 Fifth Avenue. New York City.

anuary 8-15.—Tenth Annual National Automobile Show in Madison Square Garden, New York, under the auspices of the Association of Licensed Automobile Manufacturers.

ebruary 5-12.—Ninth Annual National Automobile Show in Chicago, under the auspices of the National Association of Automobile

Manufacturers.

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\$1250 to \$2250

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Indiana

The Utmost for \$1500

No motor car at anywhere near the price can compete with the Chalmers "30" at \$1500.

We also make the Chalmers Detroit "Forty" (formerly the Thomastreit Forty) for \$2750. Write for catalog.

Chalmers-Detroit Motor Co.

(Members A. L. A. M.)

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SEND 10c. for Set of Twelve Post Cards of Locomobile Winning Vanderbilt Race.

SEND 10c. for Eleven-Color Poster of the Finish of this Race.

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The best in motor cars

Palmer & Singer Mfg. Co.

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MOTOR CARS



Hudson "Twenty" \$900 "Look for the Triangle on the Radiator"

Most low priced cars have been too small. In the Hudson "Twenty" you get a big car with a 100 inch wheel base, and 32 inch wheels. It is as roomy as any roadter made, regardless of price. To issure absolute comfort to the driver and passenger, the foot pedals are adjustable. A woman can drive it with as much comfort as a 6-fost man.

Write for complete specifications.

Hudson Motor Car Co., Detroit, Mich. (Members A. L. A. M.)

The Inter-State

There is speed, comfort and safety in every Inter-State car, the per enduring car, at a price but a little higher thas the price of ten make-shift cars. The Inter-State Touring Car, \$1,750. The Int Roadstor, \$1,750. End for Casalague.

INTER-STATE AUTOMOBILE CO., 130 Willard Street, Muncle, India

THE THOMAS FLYER

Champion Stock Car of the World

Send 10 cents in stamps to cover cost of mailing, and w beautifully illustrated book on the New York Paris Race.

E.R.THOMAS MOTOR COMPANY MEMBER A.L.A.M. **BUFFALO, NEW YORK**

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The best champagne that care, experience and money can produce FRANCIS DRAZ @ CO., Sole Agents United States

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Is a Spring that Meets All Read Conditions Automatically
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Mention "Automobile Topics" when writing.

Concerning Conflicting Glidden Tour Tire Reports

Won on Tire Cost. We Again Make the Assertion Unequivocally

In our original summary of Glidden Tour tire results we said:
"Many conflicting claims as to tire performances in the Tour will be made; put confidence where you will, but the above record (The Diamond summary, showing \$26.84 average tire cost on Diamond equipment against \$38.16 average tire cost of cars on competing makes) is the result reduced to dollars and cents."

These Figures Still Stand as the Only Correct Analysis of the Results in the Tour. Here is the Detailed Record:

BASIS OF TIRE COST—A 36 x 4 tire is taken as an average of sizes of tires used in the tour. On the assumption that stone-bruised and blown-out casings can be repaired, but that their value is largely destroyed, they are charged at one-half the retail price, or \$21.12 each, and blown-out tubes at one-third the retail price, or \$22.78 each.. Casings damaged by cuts, etc., are figured at \$10.00 each, an arbitrary price, to cover a general average of injuries and the repairs needed to make them good again. Punctures are figured at \$1.00 each in the same manner.

13 cars participating with this equipment: 2 casings blown out\$42.24

2 tubes blown out 8 stone bruises of Diamond Tires.. 168.96 Q tubes mustured by stone benising

COST ON DIAMOND TIRES.

0	tubes ruptured	Uy s	rone	or arsing	22.27
40	punctures				40.00
_	!		L		

7	casings	replaced,	but	not	seri-	
	ously	damaged	• • • • •	• • • • •		70.00

Total	\$349.00
Average per car	\$26.84

COST ON OTHER MAKES OF TIRES.

Blowouts, stone bruises and punctures were approximately equally proportioned among the 5 different makes equipping the total of 27 cars:

7	casings blown out	147.84
7	tubes blown out	19.46
28	casings stone bruised	591.36
28	tubes ruptured by stone bruising.	77.84

64 punctures 13 casings replaced, but not seriously damaged 130.00

Total\$1,030.50 Average per car

Every car with Diamond equipment reached Kansas City on original tires, but not all four original tires in every instance. But no Diamond tires were repaired enroute and returned to cars before Kansas City was reached, to permit of advertising a finish on original casings. This was done in various instances.

on original casings. This was done in various instances.

The Diamond Rubber Co. had four dependable, trustworthy men accompanying the Glidden Tour, from start to finish, whose duty it was to make tire observations impartially and accurately.

They did not accept hear-say reports—the only ones used by the newspapers and trade press reporters,—but made thorough inspection of tires on cars and carried as extras at every checking point.

Result: They record, for instance, a total of 40 Diamond punctures and 47 on the principal competing tire, against only 22 and 25, respectively, reported by the "disinterested" observers for trade papers. Who, then, does it appear really gathered tire information?

While some tire changes were undoubtedly successfully concealed by competing tire users, we have every reason to believe that the Diamond observers caught most of them. They have reported also all the injuries to Diamond Tires.

We unhesitatingly pronounce the Diamond summary of the tire results of the Glidden Tour to be substantially complete, and correct in every instance and strictly impartial.

What Constitutes the Truth

in such a case, the close inspections and observations of long-experienced tire men, or information gathered second hand by a reporter whose whole tire knowledge is at best extremely limited?

We have on file the affidavits of George A. Davidson, L. K. Rittenhouse, C. L. Sowers and Peter Seiler, all experienced tire men, who jointly made the tire observations in the Glidden Tour, vouching for the accuracy and impartiality of our published reports. These gentlemen have also read the reports in Motor Age purporting to give a record of the tire results of the Glidden Tour, and pronounced the same both incomplete and inaccurate.

Copies of these affidavits will be sent to anyone interested upon request.

Of their own reports of tire results in the tour

The Motor Age Editors Say:

"Our reports were gathered from car drivers or entrants. Official observers made no reports of the nature of tire troubles, nor did they record same in the majority of cases. There were no penalties for tire injuries or changes of any nature."

THE DIAMOND RUBBER COMPANY, Akron, Ohio.

The twelfth paragraph <u>about tires</u> on the opposite page should mean much to every motorist who is bent on reducing his car maintenance expense

It briefly tells the story of a truly wonderful piece of tire service—of a tire record that was freely admitted by contestants and others who knew to far outstrip any other made on the trip.

This claim certainly appears reasonable when you know that—

The tires which were equipped on this car were regular stock Morgan & Wright tires, chosen at random from a consignment of 200 received at the E-M-F. factory a day or so before the beginning of the tour.

These tires saw more rigorous service than those used by regular contestants. Every motorist knows the evil effects on tires of constant starting and stopping.

The one blow out which occurred was due, not to any fault of the tire, but to a rim broken by a rock in the road.

Not one defect developed in these tires during the entire tour. This statement will appear especially significant to every motorist who has had much to do with tires.

Two of the tires which went thru the grind are still in perfect condition—are still doing service on the car and will continue to do so for many a day to come.

Just to show that this record was no "happenstance," but a fair sample of the kind of service that Morgan & Wright Tires would give on your car; recall that once before this season they made this same trip under conditions even more trying on the Pathfinding Car, and came thru with the same clean record.

The results of these two tests, made under more strenuous conditions than nine out of ten tires are ever called upon to endure, only adds emphasis to that oft-quoted statement now acknowledged by motorists the world over that—

Morgan & Wright Tires

ARE GOOD TIRES

Dealers everywhere sell them at the same price you are asked to pay for other brands.

MORGAN & WRIGHT, Detroit

STUDEBAKER E-M-F. "30" PILOT CAR MADE GOOD



- AFTER ALL HAS BEEN SAID by the various contestants, each of whom would have had a Perfect Score but—
- AFTER YOU HAVE READ and considered the various tales of woe, the controversies and the disputes that have resulted,
- IT IS WELL TO RECALL that of all the records made in that strenuous 26,8-mile run, the most remarkable was that by the "little" E-M-F. "30" Pilot car—a duplicate of the one which laid out the route in April.
- E-M-F. "30" COVERED ITSELF WITH GLORY in both runs. No car of less than twice the horse-power had ever attempted the Pathfinding task before. No one—but its makers and those who owned them—thought the thirty horse-power E-M-F. could negotiate the almost impassable mud and gumbo roads in April.
- BUT THAT IS ANCIENT HISTORY NOW; we thought at the time that the Pathfinder had the hardest task. But we were due to learn something about Piloting a Glidden tour—laying the confetti so the contesting cars which followed could not lose the road nor be delayed.
- THAT PROVED THE HARDEST STUNT OF ALL. You see, in order to save time for the forty big cars which followed, the Pilot car had to make many stops in a day. On the care exercised in laying the confetti everything depended—every score in the contest.
- AT EVERY CORNER AND CROSS ROAD the car had to stop, confetti men get out and carefully place the confetti—anchoring the strips of paper in the grass at the roadside or otherwise making sure it would not blow away before the last car had passed. Two hours' start were given the Pilot car each morning. She was expected to use up that two hours in stops during the day and—if she could—get in ahead of the bunch.
- E-M-P. NEVER LOST A MINUTE of this two hours any day of the tour—always arrived one hundred and twenty minutes ahead of the first contestant—altho on some days she traveled 20 to 30 miles farther in re-routing sections of roads that were under repairs and therefore impassable.
- THIS IS REALLY WONDERFUL when you consider that, as a car selling for \$1,250 (magneto included, of course), Studebaker-E-M-F. "30" belonged to Class "D," therefore, as a contestant, would be entitled to sixty minutes' handicap over Class "A" (\$4,000 to \$6,000 cars); but that, as Confetti Car, leading the tour, she had to forego this handicap and "beat it" on Class "A" time for the entire fifteen days.

- DAI LEWIS, OFFICIAL PILOT OF ALL GLIDDEN
 TOURS in the past—and who ought to manage the next—if there ever is another—stated at Kansas City, in the
 presence of friends and rivals alike, "this is the first
 pilot car that has ever gone over a Glidden route without
 having made a repair or a replacement from start to
 finish."
- FURTHER, LEWIS STATED IT WAS A REVELATION to him that it was possible to produce for \$1,250—and include a first-class (Splitdorf) magneto—a car that could withstand the pounding and the speeding and the hard work generally that E-M-F. "30" withstood without a whimper—or a repair.
- THEN THERE'S THAT TIRE RECORD—almost unbelievable. On the entire 2658 miles only three tires were replaced on Lewis' car. Two punctures and one "blow out" was the sum total of tire troubles on this wonderful car. Detroit air was still in both front tires when the car arrived home. Tires are the most expensive item in motoring—ask anyone who motors, if you don't yourself—yet. Gasolene and oil are trifles—tires are the real problem.
- OF COURSE SHE HAD MORGAN & WRIGHT TIRES ON—same as all E.M.F. "30" cars are equipped. M. & W. folks claim no other tires made could have withstood the work as well as these—we don't know. They claim no other cars were subjected to such hard work. We agree to that.
- BUT WE CLAIM THE CAR IS ENTITLED to much of the credit, even for the tire record, in that the weight has been reduced to the last pound by the use of the best materials known to the art of automobile making; the design is right, so the weight is properly distributed. Then, too, we followed the advice of the Master Tire Makers (Morgan & Wright) in amply equipping all cars —32 x 3 ½-inch, quick detachables, all round.
- WHATEVER YOU DO. DON'T buy a heavy car for hard touring. By "heavy" we mean, heavy in proportion to power and tire equipment. Some folks would think, to look at it, that the great big, luxurious Studebaker-Garford "40" was heavy. On the contrary, it is very light—for its size and power and tire equipment.
- AS WE SAID BEFORE, lightness in an automobile is a guarantee of quality—you can't make 'em light aud use poor materials. And the best materials are cheapest—only some makers don't know it, apparently.

STUDEBAKER AUTOMOBILE COMPANY

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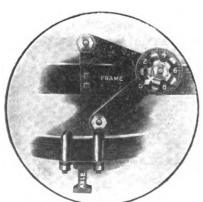
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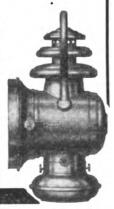
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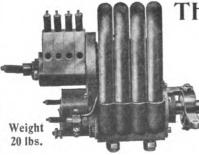
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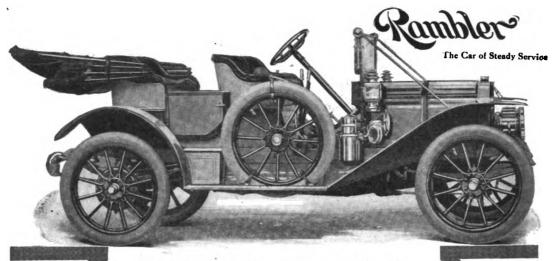
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Vol. XVIII.

NEW YORK, AUGUST 21, 1909.

No. 20.

TABLE OF CONTENTS	
Typical Scene at the Brooklands (England) Track During the Handicap Sprint	PAGE
Race on July 31Frontispiece	
Topics	1327
Indianapolis Motordrome Ready for Opening Meet	1329
Rheims on Eve of Aviation Week	1330
Getting Ready for Fairmount Park	
Novel Events Amuse at Philadelphia MeetIllustrated	
Seattle is Enthused Over Its Carnival	1334
Lowell Prepares an Attractive Three Days' Program	
Willard Makes Longest Cross Country Flight	1337
Commissioner Smith Revokes Licenses	
Gear Changing Methods ComparedIllustrated	
The Farmer and the Motorist	
Automobile Topics Touring Supplement—1909 A. A. A. Tour. Section 6—Kearney	
to Denver	1345
"Little Glidden" Run for St. Paul	1349
To Signpost All of Illinois' Roads	
Thomas New Model With Long-Stroke EngineIllustrated	1352
Route Book is Issued by Studebaker	1361
Traffic Rules and Their Enforcement	1362
Lynch Law Almost Justified Editorial	1363
Airships to Be Deciding Factor in War Time	1363
The Pierce-Arrow Home in ParisIllustrated	1364
How Stearns Rear Springs Are SecuredIllustrated	1365
A King's Luxurious CarIllustrated	1366
How I Fitted a U. & H. Master Magneto to a Model "S" Buick	1367
What Ajax Tires Did on Transcontinental Run	1360
Van Dyke is Manager of Sales	1371
Index to Advertisers	1372
News Notes	1373
Incorporations	1374
Automobile Calendar	1375

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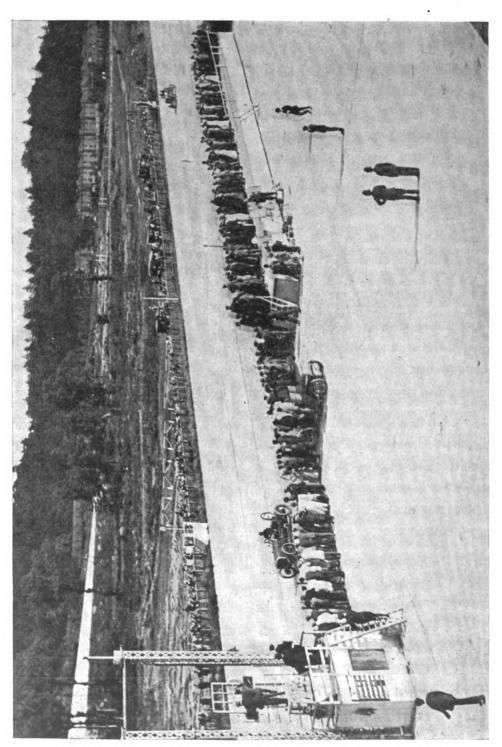
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THE AUTOMOBILE USERS' WEEKLY

Vol. XVIII.

NEW YORK, AUGUST 21, 1909.

No. 20.

TOPICS

Something good is coming out of New Jersey—that State little liked by motorists. A real effort is being made to discourage

reckless driving and joy riding. A courageous and intelligent Commissioner of Motor Vehicles is making use of the power of revocation of licenses possessed by him to stamp out the twin evils. His plan is to punish wrongdoers as fast as proof of their wrongdoing is furnished. It is stated that nearly a score of licenses have been revoked during the past few months and that many more are to follow if a halt is not called on the practices referred to. This is as it should be, and the only wonder is that other commissioners and other States do not pursue the same methods. The force of example is very great, and every license revoked, every violator sent to jail, exercises a tremendous influence upon others. Even the most reckless driver is apt to think twice before indulging his propensities if the sort of punishment referred to is known to await him at the end.

"The agitation for the improvement of the Plank road will begin again in earnest, and, it is hoped, with success," remarks the Motor Record, of Newark, N. J. There has been plenty of agitation for an improvement of this notorious highway leading out of Jersey City, but so far nothing has come of it, nor does anything seem likely to do so. It is one of these cases where everybody is in agreement and yet nothing is done. That there should be a modern, improved highway from Jersey City to Newark is disputed by no one, and time and again it has been decided that one shall be constructed. But work is never begun, and the Plank road becomes worse every year and less fit for the use to which it is put. The Turnpike, the other highway between the two cities, is not quite as bad as the Plank road, but this is determined only as a result of comparison. It is a choice of two evils, and the only possible routes through Jersey City itself are of a nature to make matters worse. The motorist who undertakes the journey has the certainty of being offended through his eyes, ears and nose.

More than 12,000 tourists licenses have been issued by the State Department of Motor Vehicles of New Jersey.

When it is remembered that there are thousands of grade crossings, many of them on frequented highways, and that fast-speeding trolley cars are almost as dangerous as trains drawn by steam locomotives, the wonder is that more accidents do not occur. At the present time travel is very heavy, touring being at its height and resort traveling in a similar condition; yet a little care will serve to prevent accidents. If a crossing is approached slowly, with the car under control, and ready to come to a complete stop if need be, it is not at all difficult to determine whether a train or trolley car is approaching. Once it has been decided that it is safe to cross, expedition is highly important. Get over the track at once and avoid any possibility of being caught thereon.

The new Michigan Highway Commissioner finds 559 applications upon file for State reward work. Each stretch of roadway requires from three to five inspectors, which will make 1,500 separate pieces of work of this class for the new official and his force.

There is talk of introducing in the Wisconsin Legislature next winter a bill providing a penalty for failure to render assistance to persons hurt by motor cars. The proposed bill is to be known as the "standing-by law," and is similar in effect to the federal law requiring masters of vessels to stand by in case of accident or collision. The suggestion is made that a clause be inserted in the bill making the failure to remain and render assistance prima facie evidence that the driver was at fault for the accident and ground for action for damages.

Pennsylvania has a new horse-racing track, which bears the curious name of "Autoville." Possibly its conversion into a motordrome was in mind when it was christened.

The Wisconsin courts are to be called upon to decide whether it is legal for one user of the road to obstruct or impede the progrss of another. Suit has been brought by a motorist against a farmer who, it is charged, "unlawfully and unreasonably obstructed and impeded the right to travel." The motorist was returning home from Milwaukee when the farmer was approached. A second farmer came along, the two held a conferenc, and both headed toward Racine at a gait much slower than four miles an hour, for more than six miles. When the motorist signaled to be permitted to pass the wagons were drawn abreast.

Racing on a specially constructed speedway is to be given its first trial this week at Indianapolis, which is the American Brooklands—and more. The outcome is awaited with interest.

Road repairing is going on in many places, and tourists should take the fact into account when timing their trips. Roads are likely to be obstructed, and sometimes even closed entitely, where the rollers and other paraphernalia are being operated, in which case detours are necessary. It would be a good thing if the work could be so arranged that there would be no interruption to traffic.



Indianapolis Motordrome Ready for Opening Meet

As these lines are being written (Thursday, August 19), racing on a specially constructed speedway is being tried at Indianapolis. On the 2½-mile cement track high-powered cars will be let out at top speed, and it is expected that sport of the most exciting and interesting kind will be furnished and that the American Brooklands, as it has already been termed, will establish itself in public favor at once.

The initial meeting is expected to be the greatest automobile event ever held in America. Practically every car and driver of prominence in this country, and several of the best cars manufactured abroad, will face Starter Wagner during the three days of the carnival. Among the men who will pilot the speed cars are a few unknown to eastern motorists, but they are the cream of the successful drivers in the western part of the country, and their supporters pick them to hold their own with the well-known drivers in the East.

Barney Oldfield will have an opportunity to try out his new acquisition, the 120 hp. Benz, in fitting style. The Benz is the same car that David Bruce Brown drove so successfully at hill climbs and beach and straightaway races early this season. Oldfield's old rival, Walter Christie, piloting his front-drive Christie, will also be among the participants in the carnival, while Lewis Strang is expected to spring a surprise with his new special eight-cylinder Buick racer.

After working night and day for several weeks, the track was declared ready for the initial meet several days ago, and practice was commenced by a number of the racers at the speedway.

The first day of the meet will be devoted to the running of five events, the principal one of which will be the 250-mile race for the Presto-O-Lite trophy, for which the following entries have

been received: Jackson (2), Knox, Stoddard-Dayton (2), Chalmers-Detroit, National (2) and Buick (3). On the following day the feature of the eight-event program will be the 100-mile race for cars with 231 to 300 cubic inches piston displacement for the Indianapolis Speedway trophy, for which these entries were received: Marmon (2), Marion (3), Jackson and Buick (3).

On Saturday, the final day of the meet, the principal race of the carnival, the 300-mile contest, will be run. This event is closed to cars with a piston displacement of less that 600 cubic inches, and the prize is the best ever offered in the world of sport. It is the Wheeler-Schebler trophy and cost \$8,000. The following entries have been recieved for this event: Knox, Stoddard-Dayton (2), National Six (2), Fiat, Buick (3) and Apperson (2). Besides this race the program will include two races for amateur drivers at 10 and 15 miles.

The Indianapolis Motor Speedway, which was built at an expenditure of approximately \$350,000, is a two and a half mile oval, with the road twisting and turning, making it possible for a car to travel five miles in one circuit. On the stretches, which are a mile long, the track is fifty feet wide and unfenced, while the turns are ten feet wider and have a fence two feet high, which is used as a guard rail. The turns, which have a 1500-foot radius, can be negotiated at high speed with perfect safety, being banked 12 feet.

The Speedway Park has an area of 328 acres, and contains forty-one buildings, including grand stands, garages, aerodromes, machine shops, oil houses, refreshment and office buildings. The press stand, which is three stories high, is the largest ever built, while the ten buildings erected for the use of competitors each accommodate three cars.

Rheims on Eve of "Aviation Week"

All eyes in the aeronautical world are turned toward Rheims, France, where for one week, commencing Sunday, August 22, aviators representing the United States, France, Italy and Austria will compete for various prizes, chief of which will be the Aviation Cup. Many of the contestants are now in Rheims, and have been making trials and getting their machines in readiness.

Glenn H. Curtiss, America's only representative at the meet, arrived at Betheny Plain, the scene of the contests, on August 13, after a recordbreaking trip from New York. He took only one machine to France with him, and to insure its arriving on time brought it along as personal baggage.

On the morning of August 16, after taking two two-minute flights, the motor of his aeroplane suddenly stopped on the third trial and the machine fell heavily to the ground. The accident occurred while the wind was blowing violently and the American aviator was prevented from landing his machine with the customary gentleness. As a result Curtiss suffered several slight contusions and his ankle was sprained. The machine was slightly damaged. Both aviator and aeroplane were in condition for flight several days later.

The scene about the aviation field at Betheny Plains is an active one. The hum of the motors as they are being tested can be continually heard, while almost daily some of the aviators make trial flights, to the delight of the large crowd of spectators that have already gathered for the meeting.

Almost all of the aeroplanes entered for the race have arrived at Rheims. The aeroplane sheds are grouped in rows of twelve, each shed capable of holding two aeroplanes. In the front row are five of the seven Wright machines, the Herring-Curtiss machine, and three Bleriot monoplanes. In the second row are the Antoinettes, the Fernandex biplane and M. Jean Gobron's Voisin biplane.

New Seashore Road for New Jersey

The Board of Freeholders of Monmouth County, N. J., have accepted plans and specifications for the construction of a new highway in the vicinity of Long Branch. The road will start from the McCall estate at Cedar and Norwood Avenues and run through the village of West Long Branch to the Eatontown Boulevard. The new highway will be about three miles long and the estimated cost is \$12,000. It will be built of gravel, and the expense will be shared by the Monmouth County Board of Freeholders, the borough of West Long Branch and the township of Eatontown. When completed the road will provide a short route from Freehold to the seashore.

Reliability Run Delayed by Non-Arrival of Sanction

The two-days' reliability run of the Minneapolis (Minn.) Automobile Club, which was scheduled for August 17 and 18, was postponed for one week owing to American Automobile Association delaying a sanction for the

event. The members of the Minnesota organization are exasperated at the action of Chairman Hower in holding them up with the sanction, as they declare they applied for it in seasonable time.

Getting Ready for Fairmount Park

PHILADELPHIA, August 18.—Mayor Reyburn will be the honorary chairman of the committee which has the engineering of the great Fairmount Park race on October 9. The active chairman, however, will be Dr. Neff, director of the Department of Health and Charities. This refers to the sale of parking space, grand stand seats, and the silver offering which will be asked of all spectators who enter the park on the morning of the race, for all the money received in this manner will be turned over to the various charities listed to receive a share of the receipts.

The General Committee has not yet been announced, but it will be subdivided to care for the many details of the financial end of the meet. As a starter, the Quaker City Motor Club, which is promoting the rally, has subscribed for fifty boxes for the use of its members, and has agreed to pay the same price which the general public will be asked for similar reservations.

So far only one-fifth of the total number of cars permitted in the contest have entered. They are not coming as fast as the club expected, but the officials hope to hear from several concerns after the races at Indianapolis are over. The course in the park will be opened to the drivers of cars entered in the contest one week before the races at certain specific hours.

Guttenberg Track to Become a Motordrome

Automobile racing is to be tried again on the Guttenberg (N. J.) track. An announcement has been made by the Palisade Automobile Association, with headquarters at Union Hill, N. J., that it has assumed control of the historic track on top of the Palisades and will at once convert it into a motor-drome. The track proper is a mile in length, but there is an old straightaway course, to which will be added a turn of wide radius, giving a two-mile circuit.

The plans of the promoters include making the track a combination of rock, concrete and asphalt. This can easily be done, as the surface of the present oval is only about six inches above solid rock. The depressions in the rock will be filled in with cement and asphalt, and with the turns banked at least eighteen feet, an exceptionally fast course is expected to result. More than half a million dollars is to be spent in resurfacing the track and erecting

a new club house, grand stand and pavilions.

The opening series of races on the track is set for Labor Day, September 6. The main event will be a race for small cars for the Palisade Cup, at a distance of 300 miles. On September 10 and 11 there will be given a twenty-four-hour race for cars selling from \$1,251 to \$2,000.

Aviators Go Prospecting

A party of aeronauts and scientists, guests of the Aero Club of America, went up the Hudson River on August 12 on one of the Albany boats. The trip was made to give the Contest Committee of the Aero Club an opportunity to make observations of the air currents along the route of the aero flights to be held in connection with the Hudson-Fulton celebration, and to select a site in Albany for the landing of the competing machines.

Novel Events Amuse at Philadelphia Meet

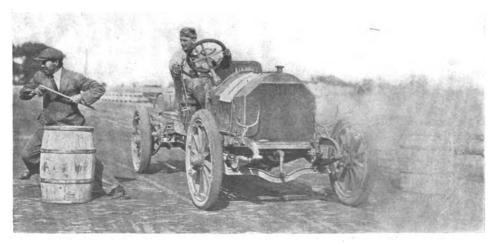
The Point Breeze track in Philadelphia was the scene of several interesting and sensational speed battles on Saturday afternoon, August 14, when the Quaker City Motor Club held its annual midsummer meet. The programme, besides containing a number of speed events, included a gymkhana and a novelty event in the form of a one-mile city speed limit test. The honors of the day were divided between Willie Haupt and the 60 hp. Berliet, and Ralph De Palma and the 60 hp. Fiat Cyclone.

The meet was one of the most successful yet conducted by the Quaker City Motor Club, and a large crowd attended. The track was far from being in excellent condition, the dust being very thick despite the large quantities of oil and water used to lay it. The turns at both ends of the oval were rutty and the accidents that occurred are attributed to this fact. Notwithstanding the adverse condition of the track fairly good time was made in most of the events, De Palma equal-

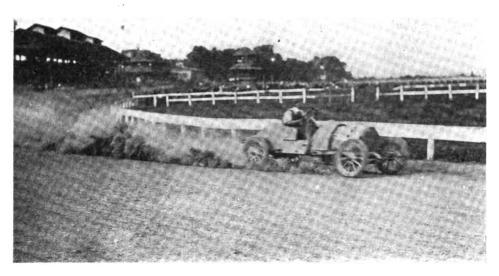
ling his own record for one circuit of the track, and establishing a new local record for ten miles.

The early events consumed so much time that the automobile polo game, which was the last event on the programme and was expected to result in an interesting contest, had to be aban-The gmykhana afforded the spectators considerable amusement, the efforts of the motorists to spear potatoes, run their cars around obstacles, and race backward, putting the crowd into spasms of laughter. Eddie Wilkie, the driver of a Buick, was the most adept at these things and consequently was awarded first prize, while Lescault in a Simplex was a close sec-"Philadelphia" Tom Berger, although in his own climate, could only finish third with his Oldsmobile.

While the gymkhana amused the spectators the crowd was particularly interested in the one-mile city speed limit test, a unique event which required the winner to circle the one-mile track in time closest to the limit



THE POTATO BACE-FRANK LESCAULT DRIVING HIS SIMPLEX



HOW THE DUST WAS RAISED ON THE TURNS

set by Pennsylvania officials for cars' traveling on city highways. Each of the cars entered in this event had an observer stationed on it to see that no watch, speedometer, etc., was used while the car made the circuit of the track. It was laughable to see the snail pace set by drivers noted for their daring in road and track races. Florida, driver of one of the Locomobiles that competed in last year's Fairmount Park race, seemed to know the speed required in Philadelphia better than the number of other drivers that competed, for he finished a winner in exactly the right time, winning the Bailey, Banks & Biddle trophy. time for the mile, which he made in a Locomobile, was 5.02. George Daley in a Woods electric, was second in 5.19.

The principal event of the day, the Point Breeze Marathon at fifty miles, was won by Willie Haupt in a Berliet, after a sensational race. Four cars, the Simplex, Lescault; Welch, Bergdoll; Berliet, Haupt, and Lancia, Poole, faced starter Fred Wagner in this event. Lescault was the quickest at the start

and before the first mile was finished he was leading with twenty-five yards, while the Berliet and Welch were fighting for second place, with the Lancia last, but going at a conservative speed.

Despite the frightful condition of the track the driver of the Simplex continued to keep his car in front, a handy distance in advance of Haupt in the Berliet. The Simplex retained its lead until on the thirty-sixth mile, when it struck a ditch on the back stretch and was sent crashing through a fence, Lescault and the mechanician were uninjured in the smashup, but the car was eliminated from the race. After the accident to the Simplex the Berliet went to the front and remained there to the finish. As the car handled by Haupt was approaching the finish line one of the tires exploded. A cry went up from the spectators as the car swerved toward the fence, but Haupt regained control and skidded over the finish line a winner in 50 minutes 32 The Welch was second in t seconds. hour I minute and IO seconds. Lancia was third, 20 seconds behind the Welch. De Palma for the second time this summer managed to break a local record. He hung up a new mark in the ten-mile handicap event, when he negotiated the distance in 10 minutes 59 seconds. He also made an attempt to break his mile record for the track of 1 minute 1 4-5 seconds, which he made on June 26. On the first attempt the Fiat Cyclone driver equalled his record mark and after removing the speedometer went around again, but was handicapped considerably by the dust, and the best he could do was 1 minute 2 seconds.

Tom Berger's Oldsmobile was an added starter in the five-mile race, open to cars of A. A. A. Class 4, price \$1,251 to \$2,000, and easily defeated the Mitchell and the Buick. H. Davis, driving a Moon car, had little difficulty winning the ten-mile race from Berger in an Oldsmobile, while the five-mile free-for-all, best two out of three heats, went to De Palma, in the Fiat Cyclone.

The summary of the events follow:

Five miles.—Free-for-all—Won by 60

hp. Fiat (De Palma); second, 50 hp. Simplex (Lescault). Time, 6.02.

Ten miles.—Motorcycle race—Won by Bradley (Darling); second. Indian (Brockhouse). Time, 15.05 2-5.

One mile.—City speed limit test, freefor-all—Won by 20 hp. Locomobile (Florida), time 5.02; second, Woods Electric (Daley), time 5.19 3-5; third, 18 hp. Franklin (Dannehower), time 5.30 3-5.

Five miles.—For cars selling from \$1,251 to \$2,000—Won by 30 hp. Oldsmobile (Berger); second, 30 hp. Mitchell (Borle). Time, 7.57.

Trial against track record for one mile. Fiat Cyclone (De Palma) equalled his own mark. Time, 1.04 4-5.

Gymkhana Race. — Free-for-all — First heat won by 18 hp. Buick (Wilkie); second, 30 hp. Oldsmobile (Berger). Second heat won by 50 hp. Simplex (Lescault); second, 20 hp. Hudson (Gibney). Final heat won by Buick (Wilkie); second, Simplex (Lescault); third, Oldsmobile (Berger).

Ten-mile race.—For cars selling from \$2,001 to \$3,000—Won by 30 hp. Moon (Davis); second, 40 hp. Oldsmobile (Berger). Time, 12.56.

Point Breeze Marathon.—50 miles, open to stock chassis—Won by 60 hp. Berliet (Haupt); second, 70 hp. Welch (Bergdoll); third, 18-20 hp. Lancia (Poole). Time. 59.32.

Seattle Is Enthused Over Its Carnival

Automobilists of Seattle, Wash., are enthusiastic over the programme arranged for the initial automobile carnival to be held in the Western city on September 8, 9, 10 and 11. The entry blanks were recently issued and the events include a hill climb on the Queen Anne counter-balance on the afternoon of September 8, while on the two following days there will be automobile races at the Meadows track.

The carnival, which is to be held under the auspices of the Alaska-Yukon-Pacific Exposition, with the sanction of the American Automobile Association, is to be concluded with an automobile parade which will form on the morning of Saturday, September 11. The

line of the parade will pass through the city, entering the exposition grounds at the main gate and passing out at the south gate. The parade, for which no entry fee is to be charged, will be divided into four classes—Decorative, grotesque, racing and commercial, and prizes in the form of a silver cup will be awarded to the winner of each class.

The cars competing in the hill climb will be divided into eight classes, according to the A. A. A. price classification, and an entry fee of \$10 will be charged. There will be eleven track events ranging in distance from mile time trials to a twenty-four-hour race for stock chassis.

Lowell Prepares an Attractive Three-Days' Programme

Three days of racing will comprise the offering of the Lowell (Mass.) Automobile Club during Carnival Week, which is to begin on Labor Day, September 6, and continue on the 7th and 8th. Entries are beginning to come in, among them being an American Locomotive car, to be driven by H. F. Grant, who piloted a car of this make in the Lowell race last year, and a Renault entered by Paul Lacroix, which Charles Basle will drive.

The curtain raiser, on Labor Day, will be the light car sweepstakes; Tuesday will be devoted to a one-mile straightaway competition in which a number of prominent cars and drivers will participate; Wednesday, the final day of the carnival; the main event on the card will be run. This will be the 318-mile road race for the Lowell trophy, and will be limited to cars having a piston displacement of between 451 and 600 cubic inches.

The start of the Merrimack Valley course is upon the one-mile speedway of Lowell's magnificent boulevard, which extends into New Hampshire. Five miles up the bank of the Merrimack River there is a sweeping curve of the highway that is called the hairpin turn; for the road describes a semicircle before it climbs a long hill, bordered on either side by woodlands. The danger attached to the negotiation of this turn by the high powered cars has been eliminated somewhat this year by widening it twelve feet.

This is the beginning of what is known as the back part of the course. It is an old turnpike road that has done service since Colonial days, and it passes through an old farming country, rather sparsely settled even to this day.

It parallels the first leg of the course, and runs so close to it at several points

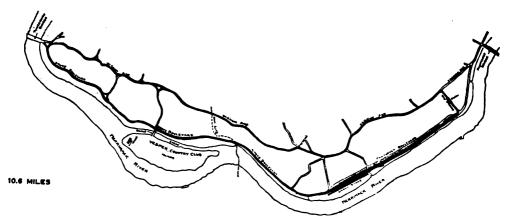
that the spectators can see the cars upon both roads.

It also contains the sharp declivity known as the drop. When officials of the Racing Board of the national association went over the course prior to the 250-mile road race of last year, they stopped their machines in amazement at this point. To all appearances the bottom of the road had fallen out. The chimney of a house was just visible in the hollow before them, and the road could be seen climbing the hill on the other side; but it seemed sheer folly to run down at anything like forty miles an hour.

"It will prove a veritable dip of death," said one of the officials, but when the first driver of a racer arrived in Lowell, he laughed at it, and coasted down as though it had been constructed for his amusement. It was not a safe road by any means, but after the engineers had leveled off the bumps, and widened it a bit, though still sensational, it offered no serious problem to a driver who understood his business.

Indeed, the point that racers fear on the course is neither the hairpin turn nor the dip, though both held the spee totars in suspense during the race of 1908, but the sharp turn from the back road into Dunbar Avenue, and then again into the boulevard. The avenue is a little cross street originally constructed for a land boom, and never built upon. It has been so improved this year that it offers no trouble other than the two sharp turns coming close to each other. Once by the second turn and the racing machine is again on the mile speedway.

It is along this mile speedway, wide enough for four machines to run abreast, that the highest speed of the coming road races will be made, for beyond that straight and level mile, as



MERRIMACK RIVER COURSE

hard as a cement floor and as well constructed as scientific road building can make it, the boulevard begins to make graceful curves through wonderfully beautiful park land and splendid country. It will never do to run abreast there, and he who takes the lead at the end of the speedway can hold it for many a mile.

In the one-mile straightaway competitions on September 7 there will be eleven events, classified according to the rules of the American Automobile Association. They are as follows:

No. 1.—Open to gasolene stock cars selling at \$851, to and including \$1,250.

No. 2.—Open to gasolene stock cars selling at \$1,251, to and including \$2,000.

No. 3.—Open to gasolene stock cars selling at \$2.001, to and including \$3,001.

No. 4.—Open to gasolene stock cars selling at \$3,001, to and including \$4,000.

No. 5.—Open to gasolene stock cars selling at \$4,001, and over.

No. 6.—Free-for-all—Open to cars of all types and motive power.

No. 7.—Open to gasolene stock chassis with piston displacement of 301 cubic inches and not to exceed 600; minimum weight. 2,400 lbs.

No. 8.—Open to gasolene stock chassis with piston displacement of 301 cubic inches and not to exceed 450; minimum weight, 2,100 lbs.

No. 9.—Open to gasolene stock chassis with piston displacement of 231 cubic inches and not to exceed 300; minimum weight, 1,800 lbs.

No. 10.—Open to gasolene stock chassis with piston displacement of 230 cubic inches and under; minimum weight, 1,500 lbs

No. 11.—Time trials.

Home-made Car of Two Vermont Boys

Worcester, Mass., August 16.— Two young men, Charles Gregory and Burt Vreeland, of Bellows Falls, Vt., were in this city last week on a tour of the country in an automobile that they constructed themselves during the hours after school, and in which they will tour until the snow flies, before turning back for their home.

The automobile, which stopped sev-

eral times en route, on Main Street, attracted a great deal of attention from the afternoon crowds, and, according to the story of the two boys, was constructed from the parts of four machines that had been in wrecks and were smashed up near Bellows Falis. Both boys are expert mechanics, and they began work on their automobile two years ago and finished it in June.

Willard Makes Longest Cross Country Flight

With only one month's experience as an aviator, Charles F. Willard, a pupil of Glenn H. Curtis, established a new aeroplane record on Friday, August 13. when, with the Herring-Curtiss aeroplane, he made a cross-country flight of twelve miles on Long Island. This was the longest cross-country aeroplane trip made in this country, and with Orville Wright's performance in the government test on July 29, when he flew five miles from Fort Myer and return, is the only cross-country flight on record in America. The Wright machine in the test carried a passenger and negotiated the ten miles at an average of about 45 miles an hour, while on the trip of "Friday the 13th," Willard was unaccompanied and completed the twelve miles in 191/2 minutes, an average of a little better than 36.9 miles an hour.

The machine in which Willard made his record flight is the one the New York Aeronautic Society recently bought from Glenn Curtiss. Curtiss sailed for Rheims to participate in the international races at Rheims, he was able to give Willard only one lesson in handling the heavier-than-air machine. Since then the young aviator has been studying the aeroplane closely and when it was announced that he would make a flight on August 13 several hundred persons were on the Hempstead Plains to witness the performance.

Shortly before 5:30 in the morning Williard had his machine taken from its shed and everything prepared for a flight. Few were aware that the novice was to attempt anything out of the ordinary when the aeroplane rose in the air, but when he reached the end of the plains after clever manipulation and headed the aeroplane toward Mineola the spectators gasped with astonish-

ment at his daring. Straight on at an altitude of about 100 feet the aviator continued in his flight. Over fields, roads, telephone wires and railroad crossings the machine flew. Reaching Garden City the aviator turned the flier eastward and flew over the grounds of the Meadow Brook Club to the amazement of several laborers along the roads. Continuing straight ahead Willard continued, rising and dropping the aeroplane as the landscape and wind currents necessitated, until Westbury was reached. At times the flier was scarcely discernible, so high was it, while again it flew along about forty or fifty feet above the ground.

Many of the spectators at the start had automobiles and they followed the aeroplane the best they could. At Westbury Willard made a turn and headed for the place of starting, via Hicksville. When within sight of the starting point, after completing an irregular circuit, the aeroplane was seen to gradually drop until at last it was lost to the view of those on Hempstead Plains

Willard's flight was interrupted, it was said later, through ignition trouble. When the aeroplane was within two miles of Mineola the aviator had to make a sudden dip into a valley. The sudden shifting of the elevation must have been too great a strain on the mechanism, for Willard heard a suspicious clicking in the engine behind him and shut off the power. The machine stopped, but the aviator remembering Orville Wright's successful glide from 150 feet or more, lowered the elevation plane a trifle and steered the machine to a safe landing.

When an autombile arrived at the scene of the descent, in an open field, Willard was tinkering with the mechanism. He said the cam-shaft had

broken and that it would be necessary to send to the Herring-Curtiss factory at Hammondsport, N. Y., for a new one, which would prevent him from making another flight for several days.

While Willard's flight has been surpassed by several aviators abroad, it is the longest flight across country made in America. Another remarkable feature of the flight, besides the lack of experience of the aviator, is the successful descent after stopping the motor, while the aeroplane was a considerable distance from the ground.

Boston Police Are Active

Motorists report that the police in the suburbs of Boston, Mass., are very active in enforcing the law requiring lamps to be lighted at the specified hour. The police are also energetic in operating speed traps, and the following new ones have been reported by the Automobile Owners' Association:

Boston.—On Commonwealth Avenue, in the vicinity of the Collins Memorial.

Rockport.—Broadway, between School Street and Railroad Avenue.

Milton.—Officer in Stanley Steamer No. 18,081, is watching and arresting motorists on Milton Hill.

Whitman.—Police are erecting signs, and will arrest all who exceed the speed limit.

Concord.—"Trap" in Concord Square, opposite flag pole.

Biddeford, Me.—Elm Street. Police are arresting motorists in this vicinity.

Keene, N. H.—"Trap" in square in center of town. Police arresting all motorists going over eight miles an hour.

Icarus on Zurich Medal

As a result of a competition for a medal to be awarded the victors in the International Flying Matches in Zurich, in October, the execution of the design by the sculptor Hunerwadel was decided on. One side of the medal represents Icarus in the act of fastening on his winged sandals. On the reverse side is a mountain landscape and the necessary inscriptions.

The Horn For Me

By G. E. BIRD

To my mind the most alluring,
Is the hunter's dulcet horn,
As it rings across the woodland
In the fragrance of the morn;
And there's always subtle music
In the fog horn far at sea,
With its moaning voice of warning
Sweeping o'er the billows free.

E'en the blaring horn for dinner To repast and rest invite.
When its oft-repeated measures Fills the farmer with delight, But the one on whose gay echoes All my senses seem to dote—
There is something very pleasant In the auto horn's sweet note.

Plans for a Big Aviation Meeting at Zurich

Held first in England, then shifted to America and Germany in succeeding years, the contest for the blue ribbon of the aeronautic field of endeavor—the Bennett trophy—will be contested for in Zurich, Switzerland, on October 3. The Swiss Aero Club, which has the event in charge by virtue of the win of a Swiss contestant last year, is making extensive preparations for the meeting, and expects a large entry list from aviators all over the world.

A fine piece of meadow land to the east of the gas works, about 550 yards by 330 yards, has been chosen as the filling and starting place for balloons competing in the flying matches. It is situated between the Industriestrasse and the Limmat and close to the three gasometers, which gave a total capacity of 100,000 cubic meters. A broad highroad runs from thence to Schlieren station at a mile's distance, the ground is also conveniently connected by electric tramway with the town four miles off. An iron footbridge is being constructed over the railway near the gas works, which will serve to join several roads; facilities for the traffic of motor and other vehicles will also be provided.

A narrow-gauge line will be laid down, running straight from the gas works main building to the filling place in front of the gasometers and there passing in curves the twenty balloon ailotments; there will be four rows of five lots each with thirty meters interval between the balloons, allowing the public on the filling ground to watch the interesting work of preparation.

The real starting point is at the east end of the enclosed ground, some 500 meters (550 yards) from the gasometers. On both sides of the path the balloons will take, seats are erected for spectators; to the right a covered stand with 1,000 places, to the left space for

about 50 carriages and motors. Two bandstands are provided moreover. In the Industriestrasse, on both sides of the chief entrance to the ground are two spacious restaurants, accommodation for the committees, ambulance association quarters, post and telegraph offices, etc. The balloon company's pleasure gardens and work shops will be near the Limmat, and they will fit up an observatory in their passenger kite. The dirigible "Parseval" airship will be put together close by and prepared for flight.

The history of the Bennett trophy is an interesting one. It was in November, 1905, that James Gordon Bennett offered the sum of 50,000 francs (\$10,000) for aerial navigation prizes, such prizes to consist of an object of art valued at \$2,5000 and three money prizes.

This object of art, the Coupe Aeronautique, a table ornament modelled by Andre Aucoc, of Paris, is a challenge cup, or epergne, which will finally become the property of any club belonging to the Federation Aeronautique Internationale, which wins it three times successively. It represents a long-shaped motor balloon piercing a rising bank of clouds with its car and adorned on the front with representations of air balloons and an aeroplane.

The three money prizes of \$2,500 each were intended for the victors at the three first annual meetings. According to section 22 of the rules, the winner of the first year's prize received in addition half the forfeit money in the coffers of the club organizing the meeting, the second year the winner received a third, and the third year a sixth from the same source.

These prizes for aerial navigation were handed over by Mr. Bennett to the Federation Aeronautique Internationale.

As this confederation has its seat in Paris, the first contest took place by the banks of the Siene. The Aero Club de France undertook preliminary arrangements and invited aeronauts to take part in the first match on September 30, 1906. The start was from the Gardens of the Tuilleries. It was not surprising that neither motor balloons nor aeroplanes put in an appearance; they were not yet sufficiently perfected to be capable of entering into competition with air balloons.

Sixteen balloons, representing six different nationalities, competed. Unfortunately the wind was unfavorable and most of them descended the same evening on the northern coast of France. Six, however, attempted the crossing to England, and they all succeeded. The winner was an American, Lieutenant Frank Lahm. He landed after 22 hours' flight in his balloon, "The United States," at Folling Dales, in Yorkshire. The distance covered was 647 kilometers.

According to the regulations the winning club has the arrangement of the following year's races. In 1907, therefore, they took place in America, the Aero Club of America choosing as starting point, St. Louis, a city admirably suited for long flights. Four countries were represented by nine balloons; Italy and Spain could not be accepted owing to the tardiness of their notification.

On the afternoon of October 21, the balloons ascended, favored by a light west wind. Seven of the nine remained for more than 36 hours in the air, eight flew more than a thousand kilometers; three landed on the shores of the Atlantic. Oscar Erbsloh, of Elberfeld, won the victory for Germany with his balloon "Pommern." He landed near Asbury Park, N. J. Alfred Leblanc, of France, was only nine kilo-

meters behind him, and made the record for endurance, of 44 hours.

The next contest was held at Berlin. Seven of the eight countries belonging to the Federation Aeronautique Internationale had entered the maximum number allowable of three balloons each; Switzerland alone sent only two. On the afternoon of October 11, the twenty-three balloons sailed in a southerly direction, turned westward during the night, and appeared along the coast of the North Sea on the evening of October 12. By an unfortunate error, a descent on water had been prohibited, and consequently most of the aeronauts landed on the coast; a few only risked a flight over the sea, and with one exception they all made the same mistake, touching the water too soon. Fortunately all could be saved, though only after hours of danger and anxiety. The "Helvetia" held out longest; during the afternoon of October 13, after seventy hours' journey it was landed at Bergset, near Molde, in Norway. The steersman, Colonel Th. Schæck, end his companion, Lieutenant S. Messner, won the prize for Switzerland.

Italian Ascends More Than Seven Miles

Lieutenant Minor, of the Italian army, is reported to have ascended to a height of 11,800 meters (about 71-3 miles) in the balloon Albatross, a spherical bag with a capacity of 2,000 cubic meters. On this occasion, however, the bag was inflated only to the extent of 1,200 meters.

The travelers carried with them a large quantity of oxygen to permit breathing in the rarified atmosphere. At the greatest altitude they experienced a temperature of 24 degrees below zero Fahrenheit.

The Milwaukee Automobile Club will hold a race meet September 24 and 25.

Commissioner Smith Revokes Licenses

Two New Jersey motorists had their licenses revoked recently by Commissioner Smith, of the Motor Vehicle Department of that State, as the result of being implicated in an accident that was attended with aggravating circumstances. Arthur J. Stumpf, of Harrison, lost his driver's license, and the car registration certificate of Jacob L. Stumpf, of Arlington, was revoked.

According to the report received by Commissioner Smith, the car owned by

Jacob L. Stumpf and driven by Arthur Stumpf, collided on the evening of July 4 with a car driven by Herbert P. Leppold, of Philadelphia. It is charged that after the accident, which occurred between Hilton and Union, in Union County, and resulted in Mr. Leopold and his car being injured, the driver of the Stumpf car, instead of stopping, increased his speed and ran away at a rate exceeding thirty-five miles an hour.

French to Construct 300 Mile Road 9,085 Feet in the Air

According to a recent report from Paris, the French government engineers are planning the construction of a new highway that will be the highest road in Europe that can be traveled by automobiles. It will start from Thonon, on Lake Geneva, and will end in Nice. It will be about 300 hundred miles long, and at its highest point will be 9,085 feet above sea level, or 35 feet higher

than the Stilsfer Joch Road, on the Swiss-Italian frontier. The road will cost about \$1,000,000, and the Touring Club of France is interested in the plan to construct it.

The Milwaukee Automobile Club plans to hold its annual race meet at the State Fair Park, Milwaukee, September 24 and 25.

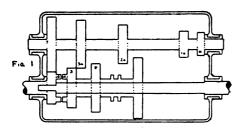


THE AUTOMOBILE COMMISSARY DEPARTMENT IN MASSACHUSETTS WAR GAME

Gear Changing Methods Compared

There are several very distinct advantages which may be obtained through the adoption of the gate change mechanism instead of the run-through type, says a writer in the Automotor Journal.

In the first place, the gear-box is reduced in length to a very considerable extent. This is the chief advantage, and

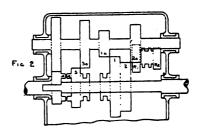


probably the one which more than any other led to the adoption of the gate change. To illustrate this, Figs. 1 and 2 have been drawn. Fig. 1 represents a gear-box giving four speeds ahead and a reverse, with direct-drive on top, the change-speed mechanism being actuated by a lever moving over a sector. Fig. 2, on the other hand, shows a corresponding gear-box, but fitted for gate change. The sizes of the various gear-wheels (excepting the reverse) are exactly the same in both cases, but in both cases the actual gear-boxes would be slightly longer than those shown, as no side clearance has been allowed between the various wheels.

The drawings, of course, are merely diagrammatic, but serve for comparison with each other. It will be noticed that the difference in length is very considerable, and, moreover, the distance between the bearings in Fig. 2 could be reduced to a material extent further by an alteration to the reverse-gear. The type shown is that in which no wheels of the reverse are in motion except when the reverse-gear is actually in operation, the

reverse being brought into action by moving the two wheels, R1 and R2, longitudinally to the left by means of the fork working in the collar shown, until R' gears with I on the main shaft and R' with 2a on the countershaft. In the sketch, for the sake of clearness, these wheels, R1 and R2, have been shown further to the right than they need be in reality, and the ends of the gear-box have been made vertical, whereas in actual practice the bearings of the main and countershafts might be brought in and the gear-box end bossed out to take the wheel, R², of the reverse and the end bearing of the reverse-shaft. would materially shorten the shafts between bearings, but even as it is, the gate-change gear-box is considerably shorter than that shown in Fig 1.

This reduction in length of shafts is of great service, as it makes them much stiffer and reduces any tendency there may be to spring. This in its turn will reduce not only the uneven wear of the wheels, but also the noise made by the gearing. Moreover, it will be seen on referring again to Fig. 2 that there is room for a central ball bearing on the countershaft without increasing the



length of the gear-box, thus giving additional support to the shaft and increasing its stiffness.

A second advantage of the gate change is that it is possible to go from any one speed to any other without passing through the intermediate speeds.

Thus a car with a flexible engine can be started away from rest upon the first speed, and then when fairly moving the top speed can be put in without passing through the second and third and, of course, when stopping, the speed-lever can go direct from top to neutral without engaging the three intermediate This simplifies driving to a speeds. very considerable extent, especially in modern cars, with a direct drive on top and a flexible engine, in which almost all the driving is done upon the top speed, the intermediate speeds being reserved for hill-climbing and the bottom for starting. Incidentally, as well as simplifying the driving, this should tend to reduce the wear on the gears, a part of which is undoubtedly due to careless gear-changing; and eliminate to a great extent the distressing grating sound so often heard when gears are being changed.

In the third place, with a gate change it is impossible, when changing, to overshoot a gear. This, of course, should not occur with a quadrant when the driver is well acquainted with the particular method in use for locking the lever in the position on the sector cor-

responding to any particular gear, and as long as the mechanism for performing this duty is in good order. Actually, however, with some forms of runthrough gear, especially at night and with a gear not particularly well-known to the driver, it is not always possible to put the lever in exactly its correct position at the first attempt. With a gate change, on the other hand, the lever has simply to go to the end of its proper slot, and has a perfectly definite position there irrespective of any catches or pawls engaging in slots or notches in the sector. The only danger is that of going into the reverse by mistake, but various devices are fitted, which, by making an additional movement of some kind necessary when the lever is to be put into the reverse slot, reduce the possibility of doing this to a minimum.

The above are the three main advantages of the gate change. There are others, such, for example, as the fact that the change-speed-lever is always in a convenient position for the driver to reach, instead of being so much inclined when on the top gear that the handle cannot be reached without leaning forward.



ROGER SOMMER AND HIS RECORD-BREAKING AEROPLANE

The Farmer and the Motorist

By Donald McCaskey, M.D.

At no time so strikingly as during the past season have autoists and farmers begun to realize that their interests are closely allied with the other for good roads. Where a decade ago the autoist with his machine was branded a horsefrightener and menace to the public, and his gasolene vehicle was sarcastically referred to as the rich man's toy. to-day the tiller of the soil and the rural dweller are looking at the situation from an entirely different standpoint. The farmers have begun to appreciate that the smooth highway which is good for the autoist is likewise a benefit to him. He is realizing now the advantage to himself of improved roads over which he can drive his family and haul his farm products to the city markets.

The farmer, as a general rule, had become so accumtomed to see his team struggling along a muddy, neglected highway in the endeavor to draw half a load that he had become resigned to the belief that this condition was in the nature of things. Slowly the awakening has come. The advent of the automobile has marked the beginning of a new When the men who drove motor cars plunged enthusiastically into the fight for better roads and began to get better roads, the farmers, who at first fought their efforts, began to appreciate the difference between their horses struggling along the old-fashioned maintained highway and the modern maintained road, over which a heavily loaded wagon could be moved at a comfortable trot.

Sometimes this help is purely in the nature of favorable sentiment toward the autoist and his highway efforts, but much of it has taken the form of active work on the roads with a simple device called the split-log drag. This device,

during the past few years, has grown rapidly in popular favor as an immediate maker of good roads, and at a ridiculously low expense. Over ten thousand farmers in Missouri are keeping in excellent repair, with the split-log drag, the ordinary country dirt roads leading from their front gate to their neighbor's front gate, toward town. Fifteen thousand are working on the roads of Illin-The Department of Highways of the State of Illinois has officially adopted this system of maintaining its roads throughout the entire State. The State of Ohio has taken up this method of road making, and foremost among automobile clubs of the nation to become enthusiastic advocates of this method of getting good roads now, to-day, cheap, stand several clubs in Pennsylvania. Among them are the Lancaster, Harrisburg, Pittsburg Automobile Clubs, and the Williamsport Good Roads Association.

The split-log drag is made from an ordinary log, eight or ten inches in diameter and from seven to nine feet long. The log is split in half, and the halves are spiked thirty inches apart, the split sides to the front. A team of horses is hitched to the drag by means of a chain, and the latter is dragged along at an angle of 45°, moving the dirt to the middle of the road. This dragging process is done after each rain. The farmer stands on the drag, and the moist earth, as it is moved to the center of the road, fills the ruts and smooths out the uneven places.

About one hour is required for the farmer to drag a mile of road after each rain. The effect of the sun and wind, baking the roadway each time it is dragged, results in a smooth, hard surface that withstands the heaviest traffic.

Automobile Topics Tour



STEVENS-DURYEA MOTOR CARS, 1910

Original features—thoroughly sound in practice—proved in prolonged tests by over one thousand of this model, have brought the superb four cylinder twenty-four horse power "MODEL X" into the very front rank of high grade motor car construction.

Price, including magneto, \$2850.00.

Top, with slip cover, \$150.00



STEVENS=DURYEA COMPANY Chicopee Falls, Mass.

Members Association Licensed Automobile Manufacturers





"You Screw the Battery In-We've Done the Rest."

If you were an electrical engineer—you'd never let your new Car come to you with Storage Batteries for Reserve Ignition.

You'd certainly prefer a battery set that requires attention

only once or twice in the whole season!—and that's all the

PATTERSON WIRELESS BATTERY SYSTEM

requires. Its fundamental principle is a SCREW TOP BATTERY CELL which, without wires or binding posts, screws into a Solid Hard Rubber Plate, automatically making all connections. This Hard Rubber Plate forms a solid, substantial, waterproof cover for the Battery Box, and as all

This Hard Rubber Plate forms a solid, substantial, waterproof cover for the Battery Box, and as all Contacts are moulded solid into this Rubber Plate, no possible loose connections, bad contacts, trouble from dampness, or anything of this sort is possible. The Battery Cells are SUSPENDED from the Plate and do not rest on any surface where dampness can collect.

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NOTE.—Battery Cells to fit "PATTERSON" WIRELESS DRY BATTERY HOLDERS are now regularly manufactured by all prominent makers of Dry Cell Batteries throughout the country. When ordering Batteries simply specify that the "PATTERSON" SCREW TOP CELL is required in place of the old Binding Post type of cell.

Do not forget that you can use old style binding post cells if, in an emergency, " screw tops" are not at hand.

Loose Sheets of This and Previous Sections May be Obtained by Remitting Ten Cents for Each

1909 A. A. A. TOUR

Section 6—Kearney to Denver

The extreme western point of the 1909 A. A. A. tour is reached in this week's installment, viz: Denver, Colorado's wonderful city. The details follow:

Down Central Ave.; right on Second St.; turn right; one block, left; fork, right, to Odessa; cross-road, right; cross-road, left; end of road, right; end of road, left; end of road, right; cross-road, left; through Cozard; cross-road, left; end of road, left for two blocks; right for two blocks; left, through

Gothenburg (68 miles).

R. R., left; right over R. R.; right at 75.6 miles; cross-road, left; cross-road, right; cross-road, left; cross-road, right; cross-road, left; at third cross-road, right; cross-road, left; cross-road, right; cross-road, left; end of road, right; fork, left; cross-road, right; fork, left; cross-road, right; fork, left; cross-road, right; fork, left; end of road, right; right turn at 113.3 miles; fork, left; right at court house; one block and left to

North Platte (116.5 miles).

Left on W. Sixth St.; right at 121.4; cross-road, left, to Hershey; end of road, left; turn right at 136.3; end of road, left; right at once; one block and left to Sutherland; end of road, right; through Paxton; right on Main St., and first turn to left; turn right; R. R., right, to Korty; turn right at R. R.; left on Main St. of

Ogallala (169.3 miles).

R. R. right; one block, right; four blocks, left; 170.6, left; 171.6, right; left at 174.3; right at 174.9; right at 176.3; left at 179.3; through Brule; end of road, right; left at 182.1 with wires; cross-road, right; end of road, left; end of road, right; left at 193.9. to

Julesburg (206.2 miles).

Continue west; right at R. R.; over bridge, left; cross-road. left; cross-road. right, to Ovid; left with wires at 218.5; right at 219.4; cross-road. left; right at 222.4. to Sedgwick; at second cross-road, left; end of road, right; end of road, left; right, leaving wires; end of road, left;

right, leaving wires; end of road, left; R. R., right, to Red Lion; over R. R.; left to Crook; over R. R.; right to Proctor and Powell; R. R. and left; through Iliff, Ford and Hayford; left at 267.3; over R. R.; first turn left; three blocks, right, through Sterling (269.1 miles).

Along with R. R. to Hall and Atwood; cross-road, left to road alongside R. R.; left over R. R. to Merino; over bridge and right; cross-road, right; end of road, left; left with main wires; end of road, left; turn left, main wires on right; end of road, right; R. R., left; cross-road, left; fork, right; keep left; through Hillrose; right over R. R.; left, main wires on left; cross-road, right; end of road, left; end of road, right; right at 308.2; left under main wires, and keep right; right at 309.5, to Brush, and along with main wires to

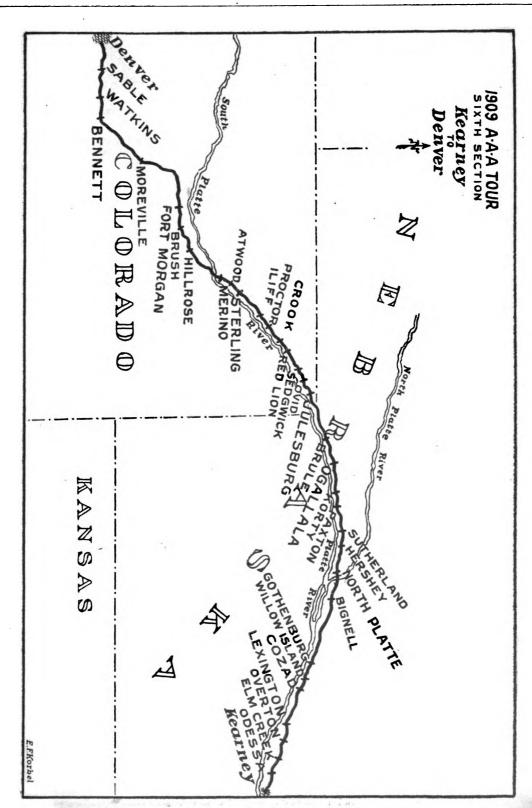
Fort Morgan (318.9 miles).

Right on Kiowa St.; left on Ensign St.; left on Railroad Ave.; over R. R., and along with wires on left; cross-road, right; over wooden bridge; end of fencing, keep left and follow trail; fork, right; fork, right; pass windmill on left; through wire gate and left; under wire and left; fork, left; end of road, right; bear left at 352.2 to Moreville; fence, left; end of fence, right; pass farm-yard on left and turn left onto trail; leaving wire fence, right at fork; end of wire fence, right; keep right of fence; leave fence, right; through second gate and right; end of tilled land on left; bear slightly left; straight to Bennett; right with R. R. on right to Watkins and Sable; fork, left, away from R. R.; keep left with wires at 402.7; right over wooden bridge on Montview Boulevard; end of road, left on McKinley Boulevard; right on Eighteenth Ave.; fork, right; left at fork; curve right at 409.2 and pass circle; right on Pennsylvania Ave.; one block and lest on Nineteenth Ave. to Brown Place Hotel,

Denver (411 miles).

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The White Line Radiator Belongs to the Stearns



THE STEARNS MOTOR CARS Belong to People Who Have the Best

THE F. B. STEARNS COMPANY

Factory and General Offices

Euclid Avenue

CLEVELAND, OHIO

Member Association of Licensed Automobile Manufacturers

"Little Glidden" Run For St. Paul

On August 27-31 the St. Paul Dispatch will inaugurate the annual Little Glidden Run, to be known as the "St. Paul Dispatch Reliability Tour," for automobiles. The purpose of the tour will be to develop a wide interest in automobiling as outdoor recreation, but primarily to increase interest in good roads throughout the Northwest, with special reference to Minnesota and the immeliate surrounding territory. The tour this year will be from St. Paul to Fargo and return, and for the event three cups will be offered, as follows:

First. A large silver bowl by the St. Paul Dispatch for the winner on general points of excellence.

Second. A cup by Col. Frank M. Joyce, president of the Minnesota State Automobile Association, for the winner in the runabout class.

Third. A cup by H. S. Johnson, chairman of the State Association Contest Committee, for the winner in the touring car class.

The *Dispatch* trophy will be competed for annually, but the other two cups will become the property of the winners.

The run to Fargo has been laid out as a divided contest and pleasure tour. There will not be so much of the contest element as to interfere with the pleasure of the trip, but at the same time there will be sufficient strenuous work on the road to make a decision on points close enough to be interesting.

The outgoing route will be from St. Paul to Minneapolis, to St. Cloud, to Alexandria, to Evansville, to Sauk Center, to Fergus Falls, to Pelican Rapids, to Rollag, to Hawley and in to Fargo, a distance of 173 miles. From Minneapolis to Pelican Rapids the route is a continuous succession of rolling beauty spots, with unexpected groves springing up along the driveway on either side, and lakes affording cool relief.

From Fargo the route will be over an entirely different character of country,

the road running through prairie country over the entire 173 miles. It will go by Wahpeton to Wheaton, and from that point cross over to Herman, to Morris, to Benson, to Wilmar, to Litchfield, and into St. Paul.

Sunday, August 29, will be spent in Fargo, thus allowing two days each way on the road. Alexandria, on the outgoing trip, and Benson, on the returning trip, will be the night controls, while lunch on the outward trip will be taken at St. Cloud and Fergus Falls, and returning at Wheaton and Litchfield. It is expected that fifty cars will enter, representing a total tourist party of four hundred. All the route, which covers twenty-six towns going and thirty towns returning, the main streets of the towns will be decorated with flags and at the dinner stops special entertainment will be afforded, such as band concerts, etc. At Fargo the Commercial Club and the Fargo Automobile Club will combine to furnish entertainment worthy the occasion, and on the return to St. Paul there will be a celebration at the Club House on Lake St. Croix.

Salvation Army Gives Children an Outing

Under the direction of Major Clarence Boyd, divisional commander of the Salvation Army, 400 Worcester, Mass., children were taken in thirtyone cars and given an outing in Hadwen Park last week. The party started from Lincoln Square and proceeded up Main Street to Stafford. and up Stafford to the park, and on the return the little tots were given a five-mile ride further out on the country road.

Luncheon was put by by the different automobile owners, and a fine programme of sport was arranged for the little children, whose families are in destitute circumstances.

To Signpost all of Illinois' Roads

A signpost campaign has been started by the members of the Chicago Motor Club, the Chicago Automobile Club, and the Chicago Automobile Trade Association, and it is proposed to push the work until every road of importance within 100 miles of the Western metropolis has been properly marked.

The Chicago motorists hope to spread the agitation and have automobilists through Illinois start a movement to have all cross roads signposted. Thomas J. Hay, president of the Trade Association, in commenting on the movement, said:

"We believe that the time has arrived to start a general campaign for marking the highways throughout the State, and it seems that there is a law in existence to compel the authorities to label the crossroads in a sensible

manner. As a matter of fact, Chicago itself is one of the worst offenders in this matter of leaving streets unmarked and it is a mystery to me that people do not start a general uprising to urge the city fathers to do something along this line.

"As far as the motorists are concerned, we are constantly obliged to apologize for the lack of signs at street corners, and visiting motorists declare they would rather attempt to find the route across the continent than to attempt the more difficult feat of threading their way into Chicago from any point ten miles out. In regard to the outlying highways within the fifty mile limit, any tourist will tell you that he constantly must inquire his way from town to town, a condition which is laughable to residents of other States and cities."

Drastic Indianapolis Law Meets with Opposition

Indianapolis, Ind., August 16.—Automobile drivers and owners are preparing to contest the ordinance recently passed providing that all persons driving cars must be registered and licensed. The measure is so broad, that every member of a family must be registered, provided they are drivers, although there may be only one car in the family.

The ordinance became effective last Thursday, but will not be enforced until September 1, when the badges are ready. The registration fee is \$1, and no examination to see whether a driver is competent is made. Whether or not a driver is competent, however, must be vouched for by two property owners.

The police expect to make drivers wear the badges that will be furnished by stopping all drivers not displaying badges. In connection with the badges a certificate of registration describing the holder will be issued.

Rochester Orphans Get Theirs

The fifth annual Orphans' Day of the Automobile Club of Rochester, N. Y., on August 10, proved as successful as previous outings. One hundred and seventy-two machines, containing 585 happy children and 50 attendants, after a parade around the city, made the eight-mile trip to Ontario Beach Park, where the children had a gay time. The roads along the route of the parade were sprinkled to eliminate the dust, and moving pictures were taken of the parade and the antics of the children at the beach.

All of the cars were beautifully decorated and each of the children carried an American flag.

Rules for City Driving

The following rules for driving in cities and towns, which were compiled by a St. Louis, Mo., motorist, will be found very useful, even by experienced drivers:

- 1. When passing a street car which has come to a standstill from behind it is weil to go slow, as it is dangerous to pass on either side, unless your car is under perfect control, so you can stop it in its length.
- 2. In passing street cars which have stopped moving in the opposite direction always drive slowly, as a pedestrian may step out from behind the street car, and unless your car is under control, so it can be stopped in less than its length, there is danger.
- 3. In passing a street car from behind on the right go slow, as passengers are apt to step off front platform with their backs to you.
- 4. In passing all covered delivery wagons going in either direction, go slow, as the driver of the wagon may jump out to deliver a bundle before his wagon has come to a stop.
- 5. In turning corners to the left always keep to your right. Do not cut across

the short way, as it is against the law and in case of accident you are liable for damages.

- 6. Slow down at the intersection of all cross streets.
- 7. Blow your horn at the intersection of all streets.
- 8. Pass all vehicles going in same direction in which you are going on their left, provided you do not have to go to the left of the middle of the streets. If you have not room to pass on their left without going to the middle of the street, slow down; stay behind them until you have room, as you are violating the law if you pass them on their right.
- o. Always slow down and use horn when you see one or more children playing either on the sidewalks, in yards or lots, as they are apt to run in front of your car without looking.
- 10. Always slow down when you are following wagons or street cars on which children are stealing a ride; also when you see passengers going to get off, as they do not always wait to get off at street crossings.
- 11. Always slow down and use horn when children are on bicycles or skates in the street or on the sidewalk, as they are apt to fall in front of the car.

Central New York Roads Temporarily Closed

For the benefit of motorists touring in Central New York the Automobile Club of Buffalo gives the information that owing to the building of new roads between Avon and Genesee, and also between Genesee and Mt. Morris, the regular routes have been closed to traffic and the most satisfactory route for one making the Elmira trip is to take the Big Tree Road from Batavia, then through East Bethany and Peoria to Mt. Morris and reaching Dansville from Mt. Morris by taking the splendid road past Craig Colony.

The road from Genesee village to the point of turning west to Mt. Morris and East to Groveland, in front of Speaker Wadsworth's home, is closed, and the road farther up the hill should

be taken by turning to the left instead of to the right in front of the Wadsworth home.

To Test Boston Taximeters

On account of numerous complaints received by both the Boston and Messachusetts State Police in regard to users of taxicabs being overcharged by drivers of them and claiming that the taximeters used in determining the cost of each ride do not work pyroperly D. C. V. Palmer, State Commissioner of Weights and Measures, began work recently to secure a definite plan for testing taximeters used by public automobiles in Boston, Worcester, Springfield and Pittsfield.

Thomas New Model With Long-Stroke Engine

In making public the details of their new "Little Six," or Model M Thomas, the E. R. Thomas Motor Company make a strong argument for the long-stroke engine, which is employed as the power plant. They preface it with the statement that Mr. E. R. Thomas has just returned from a five-months trip through Europe thoroughly convinced from his inspection of new developments in foreign factories that the most important new feature for 1910 will be the long-stroke motor.

Concerning this new feature, Mr. Thomas says further:

"By the long-stroke motor is meant one in which the travel of the piston is greater than the diameter of the cylinder. Heretofore motors have been what is generally termed as "square." In other words the bore and stroke were about equal.

"The long-stroke motor, however, has the advantage that it does not have to revolve so fast to deliver its power. A short-stroke motor with a four-inch stroke would, in order to develop its

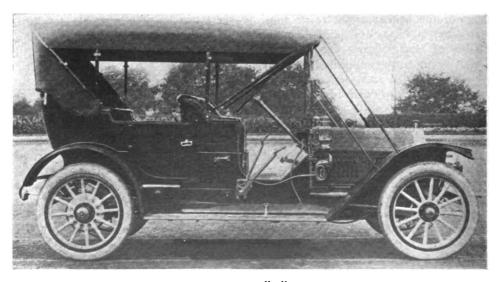
A. L. A. E. rating, have to run at a speed of 1,500 revolutions per minute. The short-stroke motor in this case runs at 37 per cent. higher speed than the long-stroke motor.

"Another comparison can be made. To drive the car thirty miles an hour, the Model M long-stroke motor makes 840 revolutions per minute, while the motor with the four-inch stroke, to give the same power would have to turn 1,155 times per minute.

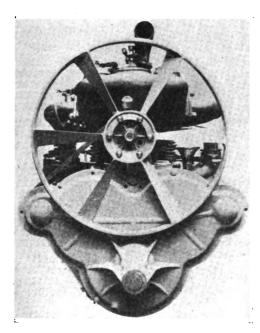
"When it is considered that to make a complete revolution the piston has to be started from the upper dead center, stopped at the lower dead center, started from the lower dead center and stopped at the upper dead center, it will be seen that fewer reversals of the piston hav to be made with the long than with the short-stroke motor.

"In other words, the long stroke motor will not only deliver a greater amount of power at a lower relative speed, but it will wear much longer than the short-stroke motor.

"The long-stroke motor costs more



THE NEW MODEL "M" THOMAS



MOTOR FROM THE FRONT

to manufacture since the cylinders are longer, the connecting rods are longer, and the crank case is much larger in

diameter. This may be one reason why only a few American manufacturers have taken up the longstroke motor this year."

The additional expense involved in the production of the long-stroke motor, however, is only one instance of the liberal policy which marks the 1910 offerings of the Thomas factory.

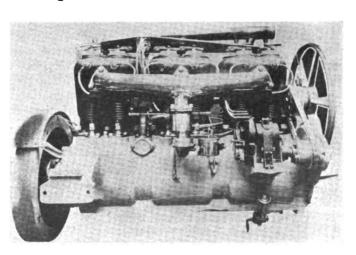
Perhaps the most noted example of this policy and the one

which is bound to appeal to the purchaser is the fact that \$3,500, the purchase price for the factory's newest product, known as Model M, includes an equipment not to be exceeded by any other high-priced car on the market.

Among the items of equipment included with this car are top, glass front, speedometer, horn, head lights and Pres-to-lite tank, two oil side lights and tail lights, robe rail, two complete ignition system, the Bosch magneto and Atwater-Kent unisparker and many other mechanical features not usually included in a car of this price.

This car is made with six types of bodies, including a touring car, runabout, tourabout, flyabout, laundauiet and limousine. The open bodies are finished in royal blue with straw colored running gear, or Thomas red with bright red running gear; while the closed bodies are painted a dark maroon color and upholstered with French gray worsted.

The bodies are of hand-hammered aluminum of the very highest quality and are luxuriously upholstered with the best grade leather and hair.



INTAKE SIDE OF MOTOR

The seating capacity of the touring car is five passengers. The wheel base is 125 inches, and the tread is standard

56 inches. The motor is a six-cylinder, four-cycle, water-cooled type, with 4½-inch bore and 5½-inch stroke. The cylinders are cast in pairs and exceedingly well water jacketed.

In the designing of the Model M motor, advantage has been taken of the very latest foreign practice regarding smooth gas passages and large valves. The actual diameter of the opening, in the clear, which carries the gas to the cylinders is 2½ inches, which is exactly half the diameter of the piston. The valve measures 25-16 inches across the head.

In order to provide for continuous running without local overheating, the valves have been completely water jacketed. The valve stems are also water jacketed.

This complete water jacketing prevents deformation of either the valve seat or of the cylinder at the top of the bore. The necessity of large, smooth gas passages will be appreciated when it is stated that the gases travel through these passages at a rate of speed approximately three-quarters of a mile a minute.

The pistons are 5½ inches long and are provided with four narrow rings.

The Automobile's Part in the Manoeuvres

A prominent part in the military manœuvres being held in Massachusetts this week is being played by the White Steamer. First of all, a White car will be used by General Wood, who is umpire in the big war game which is being played between the Massachusetts Militia on one side, and detachments from the National Guards of New York Connecticut and the District of Columbia on the other side. In addition, three White Steamers will be attached to the headquarters of General Brigham, who will command the Massachusetts troops and be in charge of the "defense" of Boston. These three cars will be extensively relied upon to locate the invading troops and to convey

the news promptly to the defending army.

Furthermore, the White ambulance, belonging to the Massachusetts Militia, will be in active service, as will be the White car of Quartermaster-Sergeant Hathaway. The latter car will be run on kerosene, and will be used in traveling about the powder magazine and other places where the military regulations prohibit the storing of gasolene in any shape or form.

Finally, Colonel George Harvey, editor of *Harper's Weekly*, has sent his White touring car to the front for the use of the war correspondents and photographers assigned to cover the manœuvres for his paper.

Plans Many Events at State Fair

The Detroit Automobile Dealers' Association is making plans for holding a two-day automoble race meet during the Michigan State Fair, which is scheduled to open in Detroit, on September 2. If the plans materialize an eight event programme, including speed, obstacle and gymkhana contests, will be run on Friday and Saturday, September 3 and 4. Already more than \$1.500

has been subscribed for prizes for the events.

To Stop Speeding at York Beach

York Beach, Me., added twelve automobile patrolmen to its police department recently. The new officers will patrol the roads in the town and enforce the law against speeding. The beach will be well guarded.

PREVENTIVES AND REMEDIES

Proper equipment in the private garage not only enables any trivial fault to be corrected immediately it occurs, but it also leads to considerably keener perception on the part of whose duty it is to look after the good running of the vehicles. Many an owner may fear that by providing his driver with the proper means for effecting all ordinary running repairs, time may be wasted in the more or less desultory use of such tools, or, even worse still, that the man may be encouraged to tamper with the mechanism of the car for the mere sake of idle curiosity or the love of taking things to pieces to "see how they work." On the other hand, however, he is apt to forget that considerably more labor is involved in dismantling any of the important parts of a modern car than most drivers would feel disposed to expend "just for fun": while only too many owners fail to observe that the chief weakness of their automobile tour is likely to be the lack of practical workshop experience on the part of their chauffeurs.

In polishing the horn and the rim of the horn screen, if care is not exercised the acid contained in most cleaning substances will collect around the edges of the screen and in time it will corrode the wires and help to clog them. If this condition is neglected the clogging may go on to such an extent as to muffle the horn amazingly and lead the owner to suspect that the reed has deteriorated or the flexible tube become leaky. Removing the screen will show at once where the fault lies, and a few minutes' work with water and a tooth brush will restore the original volume of sound.

An annoying squeak which is often very difficult to locate is occasionally caused by the edge of the doors rubbing against their pillars. This rubbing is brought about by a slight sagging of the body in the center, and may be remedied by placing a leather washer of the required thickness around the body bolt, between the body and the frame.

As many of the bolts on a car are valuable. it is of importance to know how to save them, whatever be the injury they may

have sustained. If a bolt is slightly twisted it may be straightened by gently compressing it in a vise. Although it will not be rendered as perfect as it was before, it will be at least made available for subsesequent use. If its threads are injured they may be restored to a proper state by the skilful use of a triangular file, or even of a burin. No attempt should be made to renovate them by screwing on a nut, since the damage done thereby would be irreparable. If the threads are flattened, there is no remedy therefor.

There is an old rule that one would better be safe than sorry, and motorists will do well to bear this in mind. If in doubt about driving through close quarters, such as passing another car or going between two street cars, the best plan is to give yourself the benefit of the doubt.

The generators of acetylene lamps should never be filled with hot water (from radiator, for instance), or, if this is necessary, one must wait until the water becomes cool before it is fed to the carbide. The latter is not decomposed in the same way by warm as by cold water. It gives rise to "polymers" of acetylene, in the form of very light black or yellow powders, which are drawn into the tubing and to the burner tips, which are very easily closed by them.

A tantalizing, but not infrequent, cause of puzzling intermittance in the running of a gasolene motor is a floating particle, such as a thin flake of solder which has been detached from the carburetter, or has entered the float chamber from the tank. Carried in the intermittent current of the liquid, it may suddenly become lodged so as to cover the capillary duct to the nozzle, preventing all egress of gasolene. When the motor stops the gasolene in the float chamber ceases to be stirred, and the particle finds a new position. When the motor is started again it is not in the way. but presently it returns and again stops the flow of spirit. Should engine troubles be experienced the float chamber of the carburetter may therefore be included in the parts to be inspected.

C L U B S

The Automobile Club of Buffalo has given the following information for automobilists who intend touring in Central New York: Owing to the building of new roads between Avon and Geneseo and also between Geneseo and Mount Morris, the regular routes have been closed to traffic. The most satisfactory route for a driver making the Elmira trip is to take the Big Tree road from Batavia, then through East Bethany and Peoria to Mount Morris, and reaching Dansville from Mount Morris by taking the good roads past Craig Colony. The road from Geneseo village to the point of turning west to Mount Morris and east to Groveland in front of Speaker Wadsworth's home is closed, and the road further up the hill should be taken by turning to the left instead of to the right in front of the Wadsworth home.

The Automobile Club of Hartford, Conn., is planning to move into new quarters very soon. The new rooms, which are next door to the Allyn House, on Trumbull Street, are being put in condition for occupancy.

The Portland (Ore.) Automobile Club has placed orders for 450 road signs. When they are put up the main arteries leading to and from Portland will be equipped with one of the finest set of signboards of any State in the Union. The system is the one in general use in Europe, based on the color scheme. For instance, a sign with a blue background and white letters points the way to Gresham, Sandy post office. and Welch's Camp on Mount Hood. When a traveler strikes a road with that sign on it and is headed for Welch's, all he has to do is to follow that road and disregard all unmarked crossroads entirely. Whenever a turn is made the sign will be within ten or twenty feet of the corner and on the crossroad. The placing of the signs will be a feature of the remainder The idea of the season's automobiling. is quite a novel one. Each motorist is given a sign to go in one particular spot. He organizes a little party for the outing and goes out to plant his sign. Others for the same road are out the same day. they have a little outing at the end of th run after everybody has planted his sign. He then becomes the personal custodian of that sign and keeps it in position and repair for all time. Two hundred and fifty of the signs are danger signals. Other consignments are for crossroads, and 200 are for the arteries leading from Portland. While the same color scheme is used on more than one road, it will not be done where there is a possible chance for them to conflict.

The Bureau of Tours of the Automobile Club of America has announced that the speed regulations are being rigidly enforced between Central Valley and Highland Mills, on the route from New York to Newburgh. All drivers whose cars exceed a rate of twenty miles an hour are being arrested. The bureau has also been informed that the speed regulations are being enforced in Freeport, L. I., on the Merrick Road, and that there is an "ideal tour" route to Poland Springs.

One thousand dollars was recently pledged by the Altoona (Pa.) Motor Club for the repair of the Altoona-Tyron Road. Half of this amount is to be taken out of the club's treasury and the other half is to be collected on the popular subscription plan. The Pennsylvania Railroad Company is contributing track clearings for the resurfacing of the road between Glazierville and Hensheyville.

Members of the Portland (Ore.) Automobile Club are very much pleased over the prospects of a through road from that city to the coast. The club has been visited by a committee from Tillamook recently, who have been boosting such a venture and have gone so far as to subscriptions totaling close raise \$5.000. It is estimated that such a road could be built for close to \$20,000. plan suggested by the committee was that the Portland club contribute \$5,000, the county of Multnomah \$6,000. and the county of Washington \$5.000, and this, with the \$5,000 raised by the Tillmook people. would make the necessary \$20 .-000. The Washington County commissioners are said to have agreed to contribute their \$5,000, and as the Portland club is enthusiastically in favor of such a road, it is more than probable that the \$20,000 will be raised.

AUTOMOBILE SPORTS

The members of the California Motor Racing Association, a recently organized association of San Francisco, Cal., business men and owners of racing automobiles, are enthusiastic over the prospects of a 300-mile race known as the Golden West prize motor race, which is to be run under their auspices at the Tanforan track on Sunday, September 5. The race will be for stock cars selling for \$4,000 and over, and the prize will be a magnificent trophy costing \$2,000, donated by a San Francisco hotel. The trophy will have to be won three times by the same driver with the same make of car before it becomes his permanent property. Tanforan was selected as the place in which to run the race because of its magnificent track and accessibility to the city. It is a mile track and every foot of it is in full view of the grand stands. As the people of the Pacific Coast have never been given an opportunity to witness a track race between high power automobiles over such a long distance, and as the contest takes place on Sunday, it is expected to prove a popular attraction and draw a tremendous crowd to Tanforan on September 5. Work of preparing the track for the race will be begun at once, and no expense will be spared to put it in perfect condition. The track will be banked, so as to permit of the greatest speed that the contesting cars are capable of making, with a minimum of danger to drivers and Already assurances spectators. been given of the entry of a number of the best known high power cars on the

The local track record for five miles was twice shattered at the second meet of the Spokane (Wash.) Motor Club, on August 10 at the Spokane Interstate Fair Grounds. Harry Bell driving a Stoddard-Dayton in the five-mile race negotiated the half-mile circuit ten times in 6.26, six seconds better than the record established on July 5. this year. In the twenty-mile race J. A. Stoner, driving a Stoddard-Dayton, completed five miles in 6.23 4-5. Al Davidson, in a Studebaker E-M-F., won the five-mile race after three heats. In the event for light

cars, Henry Pebles' Buick had things its own way and won in 7.27 3-5. It is estimated that more than 3.000 persons witnessed the races, which were run without an accident until O. E. McCarthy, driving a Locomobile, crashed through the fence. McCarthy was severely injured, while his mechanic, Ernest Rennison, escaped with minor bruises.

A September tour, a hill climb, endurance contest or gymkhana in October, and another membership crusade within the next few weeks are activities now being planned by the hustling Automobile Club of New Haven. With the touring season at a height and with most of the members away, there has been no opportunity for activity in the past month or two, but with the advent of fall comes the chance to liven things up and some tall sport is looked for.

According to the latest announcements the "Flag to Flag" endurance contest from Denver to the City of Mexico is to start from Denver on October 25 and is expected to finish during the week of November 15. The event was proposed and has been arranged by George A. Wahlgren, of Denver, who has donated the principal trophy for the contest.

So far twenty-two entries have been received for the trial of industrial motor vehicles which is to be held by the French Automobile Club, from October 15 to November 15 next. They comprise four Lorraine Dietrichs, four Delahayes, four Aries, two Schneiders, three Kriegers, and five De Dions.

San Francisco motorists are enthusiastic over the discovery of an ideal course which could be used admirably for speed contests of the highest type. The course is along the beach, midway between San Francisco and Los Angeles, and at low tide is twenty-one miles long and two city blocks wide. It is hard and smooth and eighteen automobiles can race abreast. The beach is known as Oceano, and lies just south of Port Hartford in San Luis Obispo County.

HIGHWAYS

At a meeting held in Alexandria last week, the Alexandria-Washington Greater Highway Association was formed. The prime object of which is the construction of a permanent highway between Alexandria and Washington. Officers were elected as follows: J. Y. Williams, president; Representative C. C. Carlin, Walter Roberts, Crandal Mackey, Ira E. Bennett, J. T. Johnson, John H. Holbrook, J. St. George Bryan, W. B. Smoot, E. L. Daingerfield, Commissioner H. L. West. Dr. D. N. Rust, J. I. Weller, Mayor F. J. Paff, C. Jones Rixey, Julian T. Burke, Hubert Snowden, W. H. Walker, vice-president; J. T. Preston, secretary treasurer; Carroll Pierce, A. D. Brockett, E. S. Leadbeater, Thomas L. Risheill, George H. Rucker, George W. Zachary, Frank Hume. J. M. Willis, Curtis Graham, Gardner L. Boothe, William Corby, S. Kann, William West, G. W. Carter, and W. R. Galliher, finance committee; G. E. Garrett, Edward Duncan, Crandal Mackey, Robert Elliott and F. S. Corbett, engineering committee; Ira E. Bennett, A. D. Marks, H. A. Colman, G. O. Mason and J. Y. Williams, road building material committee. One of the principal promoters said he was of the opinion that a twenty-foot road of macadam twelve inches in thickness could be constructed at a cost of \$40,000, while a sixteen-foot road would cost about \$34,000.

The Ontario (Canada) Motor League is busy this season putting up road signs throughout the province. It is expected that the most used roads will be well supplied by the end of the year. The signs are substantially made of iron and enameled. The lettering is large and plain. The secretary of the league requests the co-operation of all motorists in supplying information for these signs.

Ex-State Highway Commissioner H. S. Earle, of Michigan, is sending out through the State, to highway commissioners and others, copies of the revised road law, which will go into effect September 2 next. Mr. Earle explains that while still in office he tried to send copies of the measure, which is a 100-page

affair, to the highway comm ssioners. but in his own language, "the Board of Auditors refused to grant the requisition and would not permit me to have the bill printed at the expense of the State. Each highway commissioner is under bonds to the extent of \$1,000 to carry out the provisions of the road laws of the State. and how they can do this without knowing what the law is, I cannot understand."

The New York State Highway Commission has awarded contracts for the repair of roads built with State aid in several counties of the State. All the roads to be repaired will be resurfaced and then given a coating of tar macadam for binder. Among the roads to be thus repaired is the Pittsburg-Keeseville highway and the Champlain-Rouses Point road, in Clinton County. A contract for repairs to the Glens Falls-Saratoga road in Saratoga County, has also been awarded.

Motorists who have cause to use the highways of Nutley, N. J., are enthusiastic over the excellent condition in which they are kept. The members of the Town Council of this place recently decided to have all the streets sprinkled with oil. It is said that Nutley has already used more oil for sprinkling its streets than any other place of its size in the Mosquito State, and the experiments have been so successful that the council has voted to extend the sprinkling to all of the streets.

The good road advocates of the South are still alive and as a result considerable improvement has been made in the highways of that section of the country. Upson County, Ga., commissioners have arranged to hold a mass meeting at Thomaston on August 28, for the purpose of considering the question of working the public roads. Great interest is being demonstrated in that part of the State in the good roads movement.

The Ohio Good Roads Association is trying to have the county fairs set aside one day when the people will be instructed on the question of good roads. Tuesday, August 31, has been selected as Good Roads Day at the Ohio State Fair, to be held at Columbus.

AERONAUTICS

George F. Campbell Wood, a member of the Aero Club of America, who has made a careful study of the progress of aviation, in discussing the future prospects recently, said that it would not be long before flights of two hours or more would be the only ones regarded worthy of notice. "It would not be surprising to see flights of five or six hours made before very long," said Mr. Campbell Wood. "It is chiefly a question of keeping the motor going, for several machines have shown that they can carry sufficient gasolene, oil and water for such flights. Farman, for instance. with his four-cylinder Vivanus motor, recently made a flight. carrying 11 gallons of gasolene, 5 gallons of oil and a passenger weighing 204 pounds. Let him replace the weight of his passenger with extra fuel and he would easily remain in the air six to seven hours. Bleriot, on June 12. took up two lightweight passengers aggregating 225 pounds in the same monoplane with which he crossed the English Channel. I do not recall just how much fuel he used, but it is clear that he could remain in the air five hours, and perhaps longer. Gobron, in a Voisin biplane, took up two passengers a short time ago. In an endurance contest, however, it seems that the Wright brothers ought to lead the world. Wilbur Wright, last October, in France, took up with him Leon Bollee, well-known automobilist, and weighs 238 pounds. The Wright motor then used about 31/4 gallons of gasolene an hour. With this extra weight transferred to gasolene, about seven pounds to the gallon, the operator alone might remain in the air from eleven to twelve hours, or ten hours at least, considering that a heavier tank would be carried with additional oil and water. These figures simply show us what we may expect, and flights of these durations will surely come as soon as the motors become thoroughly reliable. It will then reach a point when the endurance of the operator will be a greater factor for success than that of the Orville Wright was well within the realms of plausibility in saying that the perfected Wright machine could remain in the air twenty-five hours. With improvements in the machine and the motor, such a statement is theoretically cor-

rect, and provided the aviator is equal to the task there seems no reason why flights approaching that limit may not be accomplished in the near future."

If the plans of Boston aeronauts materialize, Massachusetts will have a volunteer balloon corps. It is proposed to organize and equip an aeronautic cohort at once and official recognition by the State militia is expected. The volunteer corps will consist of men interested in aeronautics and will be made up of two divisions, pilot and meteorological. The pilot divisoon will include leading balloonists now making ascensions in Massachusetts for pleasure. Among these are Messrs. William H. Van Sleet, Sidney S. Stowell, Harold T. Pierpont, of Springfield; N. H. Arnold and Dr. W. W. Randall, of North Adams, and C. J. Glidden, of Boston. In the meteorological division will be such scientists as Professor W. H. Pickering and Professor A. Lawrence Rotch, of Harvard; Professor David Todd, of Amherst, and Professor H. Helm Clayton. formerly of the Blue Hill Observatory.

Captain Ferber, a French aeronaut, won the military aviation prize which was offered for a flight of one kilometer. Ferber used a machine of his own invention, and far exceeded the requirements by making a flight of five kilometers.

A prize of \$5,000 has been offered for the first aviator who makes an hour's flight between the Kursaal and the Estacade at Ostend. The distance between these two places is about 800 meters, and the event is being organized by the Belgian Aero Club.

A prize of \$5,000 has been offered for a flight in a heavier-than-air flying machine from Liverpool to Manchester. The event is international, and will hold good for six months. Flights can be made at any time between sunrise and sunset, but twelve hours' notice must be given to the Liverpool Daily Post, who is in charge of the competition. The aviator must start from within the boundary of Liverpool and land without any intermediate stoppage within the boundary of Manchester.

Woman Transcontinentalist Completes Her Journey

Mrs. John R. Ramsey returned to her home in Hackensack, N. J., this week from San Francisco, Cal., where, accompanied by three women companions, she had journeyed from New York in her Maxwell car. Leaving New York on June 9, Mrs. Ramsay completed the first transcontinental trip made in a motor car driven by a woman in exactly thirty-five days, arriving at the Golden Gate on Friday, August 6. Despite the bad condition of

A more picturesque section could not be found in the world. From the mountain tops the tourists had glorious views of the surrounding country, where snow-capped peaks change with rugged ranges for miles in every direction. From mountain tops the trails led the fair motorists deep down into the narrow passes of weird grandness.

Difficult traveling was encountered between Rawlins, Wyo., and Ogden, Utah. through Rock River, Rock



MRS. RAMSEY (AT WHEEL) AND HER COMPANIONS

the roads traveled, and the adverse weather conditions encountered, Mrs. Ramsey completed her trip without mishap.

In the July 31 issue of AUTOMOBILE TOPICS an account was given of Mrs. Ramsay's travels as far as Cheyenne. Wyo. From Cheyenne all the way through to the Wyoming-Utah line it was up and down mountains, through deep ruts and canyons, following along the old grass grown trails of the West.

Springs, Evanston and Ogalalo. Here previous rains had washed out the roads in many places to a depth of from ten to twelve feet. Though at this time these holes were dried out it was not an easy matter to drop into one of them and climb out on the other side.

Salt Lake City was reached on July 19, and the hospitality of the people there delayed the start for Reno, Neb., two days. A number of motoring en-

thusiasts, including ex-Mayor Thomson and his family, escorted the tourists out of Salt Lake City. After a run of 140 miles Callao was reached the same night. Sunday Mrs. Ramsay drove to Ely, Monday to Austin, and Reno, Nev., was reached on Wednesday.

In some respects the trip to Reno was the hardest part of the entire tour, for in addition to the severe climb over the Sierra-Nevada mountains, it was made doubly hard by rough roads, shifting sands, loose stones and undergrowth.

The loose sand offered particular difficulties, and very often half the air had to be let out of the tires, because it was found that a flat tire se-

cured greater traction on the sandy surfaces than when it had been inflated to proper pressure.

While the run between Salt Lake and Reno was hard, the beauties of the scenery did much to let the ladies forget their former hardships. Steep grades were encountered between Reno and Sacramento.

At 4 P. M. on Saturday, July 31, the tourists came in sight of Mount Tamalpais, and at sunset, they beheld in the distance the blue of the Pacific and the steeples of San Francisco, the golden goal of their long and arduous journey. The four women had traveled from Hell Gate to Golden Gate, a distance of 4,200 miles, from one end of the United States to the other.

Route Book Is Issued by Studebaker

The Studebaker Automobile Company has just issued a 146-page route book, which gives many popular routes between the larger cities in the central Western States. Well known routes between South Bend, Chicago, Indianapolis, Grand Rapids, Detroit, Toledo, Cleveland, Ft. Wayne, and many other cities. South Bend, the home of the Studebaker, is the center of all the routes, and on a direct line with most of the above mentioned cities.

There is also much information

valuable to tourists. Every crossroad, railroad, bridge—in fact, all detailed matter of this description is mentioned in each route. Other valuable information, such as where gasolene can be secured; also information regarding hotel accommodations in all cities included in the various routes, is given.

Any one desiring a copy can procure it upon application to the Route Department, Studebaker Automobile Company, South Bend, Ind.

Lack of Officers Leads to Speeding

H. K. Bishop, first deputy of the New York State Department of Highways, recently complained of the excessive speeding of automobiles over the State roads between Amityville and Babylon, and between Babylon and Bay Shore, Long Island. The speeding Deputy Bishop claims, is causing great damage to the roads. In his complaint, Deputy Bishop declares that automobilists respect the law in Nassau County where officers are employed to warn

them, but as soon as they enter Suffolk County, advantage is taken of the lack of officers and excessive speeding is indulged in.

Deputy Bishop says that both of the State roads in Suffolk County have been oiled once this year and heavily sanded, but from the reports of his inspector the patrolmen are unable to keep the road between Babylon and Amityville in proper condition, due to the excessive speeding of automobiles.



A WEEKLY JOURNAL DEVOTED TO THE INTERESTS OF AMERICAN AUTOMOBILISTS.

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Traffic Rules and Their Enforcement

Traffic rules are desirable, sometimes even necessary, and no one objects to them under ordinary circumstances. It is beginning to be noticed, however, and particularly by motorists, that many small cities and towns are commencing to ape metropolitan fashions and institute a traffic squad among the police, with instructions to proceed along the well known lines in effect in New York and a few other large places.

There is room for doubt in some cases whether such measures are called for, but few motorists would have any objection to conforming with the new rules if there was any means of informing themselves concerning them; or if, in the absence of such knowledge, the policemen would use common sense and common courtesy in the exercise of their authority. This is not always done, as one of two instances which recently came under our observation will show.

The intersection of Broad and Market Streets, Newark, N. J., is a busy place, and the traffic regulations referred to are in force there. The officers possess horse sense, however, and have no disposition to browbeat or hustle drivers. On one of the occasions referred to a motorist got his car a few feet ahead of others that were being held up to allow the passage of traffic on the cross street, and was brought back by the vigilant policeman, who very politely explained that traffic regulations were in force and that it would be necessary to back into position. This was promptly done, the motorist apologizing for his mistake. The other instance had the same beginning and ending, but the policeman's manner was very different. In a loud tone of voice he abused the motorist and exclaimed that in New York the latter would have been "run in" for doing such a thing. This occurred at Bridgeport, Conn., a much smaller place, and one where traffic regulations are of doubtful necessity.

The average motorist is law-abiding and needs only to be informed concerning local rules and usages to conform to them. But he does object to being abused like a pickpocket simply because he does not know that metropolitan methods prevail in small towns.

Lynch Law Almost Justified

There are times when the actions of motorists arouse indignation to the point where it is felt that lynch law would be almost justified if made use o'. Condemnation of this sort is called for by a few reckless motorists who have no consideration whatever for other users of the highway and give full rein to their propensity for indulging in unbridled speed orgies. They have regard for neither the spirit nor the letter of the law, and the safety of others is about the last thing that receives their attenion.

On the Boston Post Road last Sunday, only a few miles out of New York, an instance of this kind was observed. Two drivers were having a race, and despite the fact that the road was very bad at that point and that traffic of all kinds was heavy, they were "hitting it up" at a pace that could be conservatively estimated at close to forty miles an hour. A car ahead of them veered over toward the center of the road to avoid a bad gully, and the two racers, without slackening their speed, started to go by, one on either side. By the narrowest possible margin a collision was averted when the slower moving car was turned into its proper course, but neither of the speed drivers slackened, and disappeared in a cloud of blinding dust.

One or two speed traps were in good working order in this vicinity, but no effort was made to apprehend either of the law-breaking drivers. It was very much easier to arrest the drivers of slower moving cars, who might be exceeding the legal limit by a mile or two.

Air Ships to be Deciding Factor in War Time

In a speech delivered at the convention of the Army of the Philippines, at Pittsburg, last week, General F. D. Grant is quoted as saying: "I candidly believe that airships will be the deciding factor in future warfare. The War Department is watching with intense interest the development of the aeroplane. To my mind these air craft will play an important part in war times to come." Prophetic words, there, and in marked contrast to the attitude of some other military authorities.

The Pierce-Arrow Home in Paris

It was only a few years ago that American cars were practically unknown in Europe. The change that has taken place since then is well illustrated by the building here shown. It is the Paris branch of the Pierce-Arowners who tour abroad and make their headquarters there.

Originally the quarters were established for the purpose of providing parts for the Pierce-Arrow cars used abroad in order that the owners might



WHERE THE PIERCE-ARROW IS HOUSED

row Motor Car Company, and in itself is a monument to the progressive concern which is responsible for it.

These quarters are at 22 Avenue de la Grand Armee and have been occupied only recently by the company, the change being necessary by the greatly increased number of Pierce-Arrow

not be forced, in case of replacements, to wait for a shipment from the factory. The establishment of the depot soon caused many owners who had previously rented cars in Europe to take their own cars with them, the realization that they could secure spare parts as quickly as if they were using

a foreign car, acting as an incentive to them even when the likelihood of the need was remote.

Since the early days the scope of the depot has grown until now it acts almost primarily as a bureau of informa-

tion for Pierce-Arrow owners and as an agent in the many formalities of entering cars, becoming a member of touring clubs, securing licenses and the obtaining of proper and detailed information regarding routes, etc.

Winton Building to Go Up at Seattle

The Winton Motor Carriage Company will erect at Pike Street and Terry Ave., Seattle, one of the finest automobile establishments on the Pacific Coast. The steel and concrete building will have an 80-foot frontage and a 120-foot depth, and will consist of six stories, two below the street level and

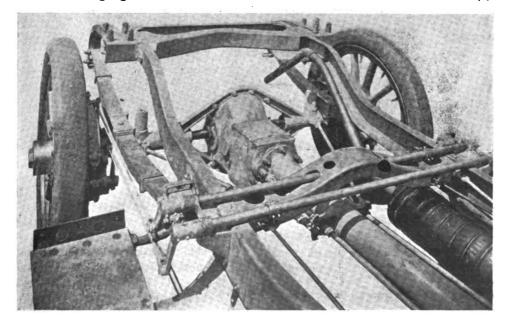
four above. Contracts have been let and the building will be ready for occupancy on January 1 next.

The entire building will be occupied by the Winton company, whose rapidly increasing business in Seattle and the northwest has far outgrown the present big quarters at 715 East Pine Street.

How Stearns Rear Springs are Secured

An example of the particular care exercised in the construction of Stear:18 cars is found in the three-quarter elliptic rear spring design on the 15-30 hp. model.

While this construction is not uncommon in high grade cars, a distinctive idea was added by the Stearns designer, for instead of the usual brackets holding the upper quarter of these springs, provision has been made in the design of the frame for holding the springs directly in the rear cross member of the frame. This is of 1/4-



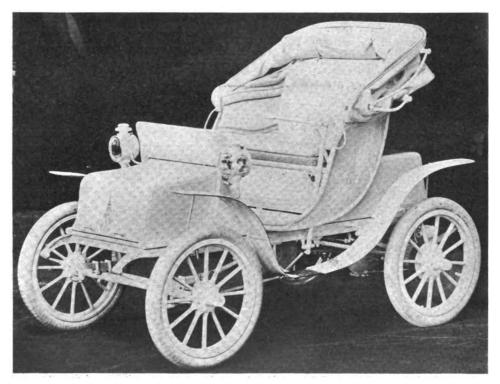
REAR SPRING CONSTRUCTION OF STEARNS 15-30

inch channel shaped pressed steel of sufficient depth to permit the main side rails to pass through it. The support is continuous from one spring to the other, and the side rail of the frame is thus free from the great torsional strain imposed by the usual construction.

A King's Luxurious Car

"Fit for a king" is a term that is used literally when applied to a car recently turned out by the Baker Motor Vehicle Company. This car is a Baker electric victoria, which was built for

dash and fenders are in white patent leather. The side panels and front of the hood are emblazoned with the crest of the King of Siam. The car is upholstered in a delicate pale green broad-



KING OF SIAM'S CAR

the King of Siam, and is unquestionably one of the most elegantly appointed motor vehicles ever built. The chassis and body are standard equipment, and it is noteworthy for the elegance, luxury and refinement of its finish and appointments.

The body and running gear are finished in ivory. The top is made of special leather, enameled in white. The cloth, the royal color of Siam, with silver gray Persian broad lace tapesttry, puff rolls and silver gray silk cord and seaming lace.

All metal parts are silver plated and it has special silver electric lamps and meter case. The lever handles are of pearl. The hood has beveled glass curtain lights at each side, and in the rear.

How I Fitted a U. & H. Master Magneto to a Model "S" Buick

By Joseph Tracy, C. A. M.

It always seemed absurd to me that the automobile, a mechanically selfpropelled vehicle, should depend upon chemical means for producing a spark for ignition purposes, for in no other field of moving mechanical endeaver using the gasolene engine, is the costly, wasteful and unreliable battery method of ignition even considered. It is, of course, true that it costs more to install a magneto ignition system originally in a car, than it does to install a battery system, but after that the com-The megneto parison of costs ceases. never wears out, needs never be replaced, and the power consumed in driving it is negligible.

It is to be remembered that I have always been an advocate of magneto ignition, not alone on the racing cars that I have driven, but also on all kinds of touring cars; so when I became possessed of a Model "S" Buick which was fitted with battery ignition, I at once became obscessed with the idea of converting into a car having magneto ignition only. My Model "S" Buick is a runabout carrying two people, and the motor is of the four-cylinder type developing 24 hp. I use it largely in the streets of New York for business purposes, in the vicinity of Automobile Row. The car, which is one of the first of this model produced by the Buick Motor Company, has had steady and strenuous service, but now that Ihave changed it from battery ignition to an up-to-date magneto system, I feel that others might be interested in the way in which I did it, hence this story.

Now, there are three systems of high tension magneto ignition in vogue the single system, the magneto alone, as the sole source of current supply; the dual system, which embraces the magneto and the batterwy system combined through one set of plugs, wires and a switch, and which really might be called a system and a half, but in a mechanical sense, rather than in a derogatory sense. The third and last system is the double system, which embraces two complete systems, a double set of plugs, a double set of wiring, a magneto and a battery, so that either can be switched on at will, as in the dual system. The merit of both the dual and the double system, if any, lies in their claimed added ease in starting, and particularly in being able to start on the spark, especially so for big cars, but it is a question in my mind if these added functions, besides adding to the cost, do not add to the complications, and so, for the above mentioned reasons, I decided to install a simple, single system, and finally selected the U. & H. Master magneto of the C. B. 4 type for the alteration, for the following reasons:

This mageto is of the true high tension type, and no coil is necessary for its operation. It not only furnishes the high tension current, but times and distributes it so that the spark occurs in the proper cylinder at precisely the right time in relation to the piston travel. Thus the entire ignition apparatus necessary to operate the motor consists of simply the magneto and the spark plugs in their respective cylinders.

The spark delivered by this magneto is entirely different in its character from the spark produced either by battery or coil systems or by magnetos which employ a separate coil to transform (or step up) the low-tension current they generate. It is not a mere spark leaping across the gap of the

spark plug, but an actual arc flame, which plays across the gap for an appreciable length of time. This remarkable result is obtained by the combined generative and inductive effects of the magneto armature with its double winding, rotating within a strong mag-The use of the U. & H. netic field. Master magneto will result in a considerable increase in the efficiency of the motor as compared with any other method of ignition, due more perfect combustion caused by the peculiar nature of the spark produced.

The principles upon which this magneto operates are not new, having been in use for a number of years, in which time the superior igniting qualities of the spark and the absolute reliability of the system have been thoroughly demonstrated. In design and construction this magneto embodies all the features and improvements which long experience has shown to be desirable and necessary. The magneto has been reduced to its simplest form, and all the parts which may for any reason require cleaning or oiling are so asranged as to make it a simple matter even for those who are not familiar with the principles of magneto ignitioa. The Master interrupter is non-adjustable, the point of ignition is fixed as advocated by the makers of the U. &. H. magneto.

The method of wiring, consists only of one wire for each cylinder leading from the magneto directly to the spark plug, and a single wire leading from the magneto to the switch on the dash, the four wires being first carried in a hard red-fibre bus-bar, on the top of the motor, and from there branching out to each separate sparking plug; the whole U. & H. Master magneto outfit weighing less, and occupying a far less space than the battery

system would, besides which no timer or distributor is needed with the motor, and having absolutely no moving parts outside of the magneto, and no cams or moving contacts are necessary in the ignition system.

In looking the car over I found that the only alterations to be made would be on the right-hand side of the motor. Here the main feature in the way of placing the magneto, was the shape of the curved gas inlet manifold. I removed this and replaced it with a perfectly horizontal one. Having no further use for the battery, which was carried under the rear turtle deck, I removed that also. The coil was removed from the dash, and as the magneto carries its timer internally, I removed the timer, and covered up the timer shaft hole in the crank case with a plate cover, bolted on. The extension of the cam shaft which carries the gears to drive the magneto I carried out through a blind hole in the forward end of the crank case, and all that was necessary to do there being to remove the cover of the hole. The bed plate in the arm of the crank case on which the magneto rests I made of bronze, and after having everything fitted I found that it was as easy quarter turn sufficing, to crank off the motor on the magneto as it was previously on the battery, and that has been my experience ever since.

In order to prevent joy riding on my car in my absence, I fitted a little Yale lock on the dash, which locks the bonnet in place so that it cannot be opened, it also cuts out the ignition service, and as I have the only key for the lock, the car cannot be used; and even if this system could be tampered with, I added a French oscillating odometer in a sealed glass case on the dash, which works on the well-known principle of

a pedestrian's pedometer, so that the slightest movement of the car will register on the odometer. Beyond all this I did nothing else with the car except to rake the steering wheel column a little more toward the rear, giving the car a much more sporty and racy appearance, and placing the steering wheel closer to me, with its gas throttle lever, the spark lever I cut away as useless for fixed ignition.

I might further add that a coat of light gray paint, which is now so fashionable, some black striping, and a coat of good varnish, have made the little car very presentable, and with its up-

to-date ignition system, I find it attracts a great deal of attention, and when the car is standing still and the motor running, the magneto driving gears run so quietly, and with so little variation of the bonnet as to deceive many experts along Automobile Row, who doubt very much indeed that the motor is running until a lifting of the bonnet reveals the fact. It also demonstrates to their satisfaction that the U. & H. magneto is able to produce a good spark when running at an exceedingly slow speed, besides always starting on a quarter turn without spinning the motor.

What Ajax Tires Did on Transcontinental Run

Mrs. John R. Ramsay, who recently reached San Francisco, Cal., after a transcontinental trip from New York in a Maxwell car, reports another wonderful showing for Ajax tires, with which the car was equipped. Three Ajax casings ran the entire distance of 4,200 miles with the original New York air in them, after miles and miles of bad roads encountered in the various States, especially through the Rocky Mountain country. One punc-

ture necessitated a change of tube after several thousand miles had been covered.

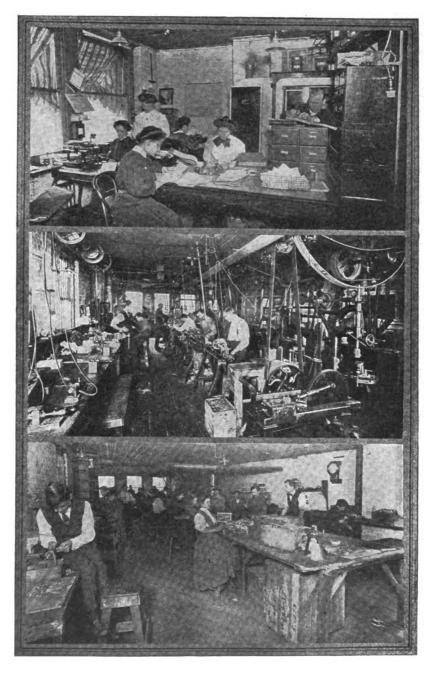
The party consisted of women only, besides Mrs. Ramsay being her two sisters, Mrs. William Atwood and Mrs. Powell, and their friend, Mrs. Hermine Jahns, with no mechanician to do the dirty work. Mrs. Ramsay is consequently highly delighted at the way the Ajax tires stood up and saved her an infinite amount of trouble and delay.

Where Spit-Fire Spark Plugs Are Made

The spark plug that delivers the goods—or the juice, in this case—is the one that drivers that know want. In the recent twenty-four-hour hace at Brighton Beach Spit Fire plugs were in the cars that finished first and third—the Simplex, driven by George Robertson, and the Palmer & Singer, piloted by Frank Lescault—and in both cases they gave perfect satisfaction.

Spit Fire plugs are manufactured by A. R. Mosler & Co., at 163 West 29th Street, New York, in a factory that for completeness and extent leaves nothing to be desired, as the three views here reproduced will make plain. The upper view shows part of the office force at work. The center view illustrates a section of the machine shop, devoted to the production of Mosler specialties, and the lower picture shows one end of the room in which Spit Fire plugs are essembled.

The uninitiated might believe that spark plugs are so generally manufactured, and are such a durable article,



HOME OF THE SPIT-FIRE PLUG

that no firm could sell enough of them to make necessary a manufacturing the use of the internal combustion mo-plant of such proportions as that here tor has caused a tremendous demand

illustrated. The wonderful growth in

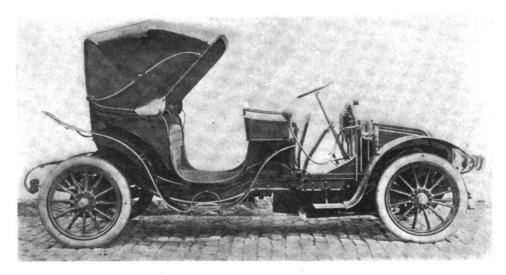
for accessories, and where the article manufactured is of excellent quality, and has proved satisfactory, there seems to be scarcely any limit to the demand. This has caused A. R. Mosler & Co. to expand the capacity of the factory several times, and every department is equipped with the latest machinery, in order to turn out an article that is perfect in every detail.

Van Dyke is Manager of Sales

Manager James Joyce, of the automobile department of the American Locomotive Company. announces the appointment of R. B. Van Dyke, as manager of sales. Mr. Van Dyke has been with the Locomotive Company for

a number of years, and with the automobile department since its inception.

Mr. Van Dyke will make his headquarters at the New York offices and salesrooms, 1886 Broadway.



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INDEX TO ADVERTISERS

2
Baker Motor Vehicle Co. 1376 Studebaker Automobile Co. 1317 Woods Motor Vehicle Co.
Automobiles (Gasolene)—
Chaimers-Detroit Chaimers-Detroit Motor Co. 1375 EMF Everitt- Metzger- Flanders Co. 1315 Haynes Automobile Co. 1375 Herreshoff Harry S. Houpt Co. 1375 Hudson-Hudson Motor Car Co. 1375 Hudson-Hudson Motor Car Co. 1376 Locomobile Locomobile Co. of America. 1376 Matheson Matheson Motor Car Co. 1376 Matheson Matheson Motor Car Co. 1376 Matheson Matheson Car Co. 1376 Mors Mora Motor Car Co. 1376 Mors Mora Motor Car Co. 1322 Overland Automobile Co. 1323 Palmer & Singer Mig. Co. 1376 Perices Motor Car Company
1909 A. A. A. 10ur 1343
Studebaker Automobile Co
Automobiles (Steam)—
The White Company Back Cover Lane-Lane Sales Co. 1375
Batteries-
Stanley & Patterson
Bodies-
Bodies— Springfield Metal Body Co Auto-Rebuilding Co
Springfield Metal Body Co
Springfield Metal Body Co Auto-Rebuilding Co. 1376 Champagnes— Pommery. 1378
Springfield Metal Body Co 1376 Auto-Rebuilding Co. 1376 Champagnes— 1378 Classified Advertisements. 1378 Coils— 1378
Springfield Metal Body Co 1376 Auto-Rebuilding Co. 1376 Champagnes— 1378 Classified Advertisements. 1378
Springfield Metal Body Co 1376 Auto-Rebuilding Co. 1376 Champagnes— 1378 Classified Advertisements. 1378 Coils— 1378
Springfield Metal Body Co
Springfield Metal Body Co 1376 Auto-Rebuilding Co. 1376 Champagnes— 1378 Fommery. 1378 Coils— 1378 Heinze Electric Co. 1322 Dust Preventives—
Springfield Metal Body Co

Instruction— Correspondence School of Motor Car Practice	1378
Lamps— Badger Brass Mig. Co	1322 1374
Lubricants— Columbia Lubricants Co	1378
Magnetos— Eisemann MagnetoLavalette & Co	1375
Oils— Columbia Lubricants Co	1374 1379
Parts— Billings & Spencer Standard Welding Co.	1378
Photo Engravers— Sterling Engraving Co	1378
Seats Auto-Rebuilding Co	1376
Second-Hand Dealers— Times Square Auto Co	1322
Shock Absorbers— Bi-Cal-Ky Auxillary Spring Co Hartford Suspension Co	1378 1318
Signalling Devices— Nightingale Whistle Co	1376
Spare Wheels— United States Spare Wheel Co	. 1374
Spark Plugs— A. R. Mosler & Co	1377
Timers— A R. Mosler & Co	. 1377
Tires— Ajax-Grieb Rubber Co Continental Caoutchouc Co. Diamond Rubber Co. Pisk Rubber Co. Morgan & Wright. Republic Rubber Co.	. 1321 . 1313 . 1323 . 1314
Tire Gripe— Weed Chain Tire Grip	. 1374
Tops— Sprague Umbrella Co	. 1378
Travel- Detroit & Cleveland Navigation Co	. 1379
Wind Shields—	1271



News Notes

The E-M-F. Co. has declared a dividend of 40 per cent., one-half in cash and one-half in stock.

H Paulman & Co., Chicago representatives of the Pierce-Arrow line have moved into their new building at 2420 Michigan Avenue.

The Chicago branch of the Overland Automobile Company, of Indianapolis, Ind., will erect a new building at 2425 Michigan Avenue.

Plans are being made for doubling the manufacturing capacity of the McKeen motor car shops, of Omaha, Neb., which is engaged in the production of gasolene motor cars for use on railroads.

After thirty days travel across the continent the Regal motor car, driven by George B. Wilcox, of New York, arrived in San Francisco, Cal., at 4 o'clock on the afternoon of August 12. The car left New York on June 5 and completed the journey in good shape.

Hereafter the Bosch magneto will be supplied as the regular ignition equipment on Winton cars. The adoption by this well-known concern of the Bosch is but one of the many signs of the growing popularity of this device, and indicates the confidence which the Winton people have in it.

Ralph Keeler, of Detroit, arrived in New York from Algonac, Mich., last week, having made the trip in less than three days. Keeler's mileage average per day was high—about 250 miles—but on the first day out from Algonac he made 287 miles. He has reported to the Hupp Motor Car Company of Detroit, that he experienced no trouble of any sort, not even a puncture.

Charles E. Reiss and Son, of East Orange, N. J., have been appointed metropolitan agents for Overland and Marion cars. Mr. Reiss has contracted for 1,500 cars for 1910, and the new deal goes into effect September 1. The new agency will control the territory comprising New York, Brooklyn, Long Island, Staten Island, and as far north as Poughkeepsie. Mr. Reiss has had the agency in New Jersey for the Overland and Marion cars for two years and is no stranger to the industry, although a new comer to automobile row. He has leased the sales rooms and garage now occupied by the Stoddard-Dayton, at the corner of Broadway and 57th Street. The Overland Automobile Company has already contracted for 14,500 cars for 1910, with agents throughout the country, and is now making preparations to have the Indianapolis and Toledo plants working full force inside of a month. The 1910 line will be announced in a few weeks.

PARH Extra Heavy Non-Skid TIRES



Win on the GLIDDEN TOUR

Mr. W. F. Smith, who was in charge of the two Maxwell cars on the GLIDDEN TOUR, writes us the following unsolicited letter about the wonderful performance of AJAX Extra Heavy Non-Skid Tires:

We wish to congratulate you on the excellent showing made by the Ajax tires used on the Maxwell cars in the Glidden Tour.

From Detroit to Denver both contesting cars carried Detroit air. During the return trip from Denver to Kansas City each of the cars had one puncture, and this was the total trouble we had during the entire trip.

An inspection at the end of the trip showed that all of the casings were in good condition, the treads looking as if they were good for several thousand miles more service.

We think this was unquestionably the best showing made by any tires during the trip.

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INCORPORATIONS

St. Joseph, Miss.-The Robinson Auto and supply Company, with \$10.000 capital. Officers: W. H. Robinson, president; Leo Muchenberger, . vice-president;; Kenneth Robinson, secretary, and R. R. Calkins, treasurer.

Newark, N. J.-Linkroum Automobile Company, with \$20,000 capital. Incorporators: Courtland Linkroum, William H. Linkroum and Charles R. Erith.

Newark, N. J.—Pope-Hartford Company, with \$30,000 capital. Incorporators: Charles C. Pilgrim, Mary E. Lane and John M. Hulbert.

Newark, N. J.-Motor Record Publishing Company, with \$10.000 capital. Incorporators. William S. Thomas, Alois F. Thomas, and Carl L. Schweitzer.

Jackson, Mich.-Imperial Automobile Company. with \$100,000 capital to manufacture automobiles. Incorporators: Bradley M. Delamater, H. S. Reynolds, T. A. Campbell, Franklin Tiffany, E. W. Barber, T. E. Barkworth and Joy Clark.

Detroit, Mich.-Fairview Motor Company, with \$500,000 capital. Incorporators. Julian H. Harris. et al.

Brookston. Ind.-Brookston Automobile Company. with \$7,000 capital. Incorporators: Milton Gay, J. H. Kneade, W. C. Holstead, J. J. Nagle, Ira Bordner, C. J. Murphy, and R. C. Alpire.

Austin, Tex.—Panhandle Automobile Company. with \$1,000 capital. Incorporators: T. M. Hand. C. L. Pool and W. A. Miller. Jr.

Paterson, N. J.-Auto Express Company, with \$100,000 capital. Incorporators. S. Venems, P. Van Riper, and J. Van Hook.

Superior, Wis.-Superior Motor and Machine Works, with \$15,000 capital. Incorporators: Solon L. Perrin, H. J. O'Brien and H. C. Lavery. Incorporators:

St. Louis. Mo.—White Garage Company, with \$20,000 capital. Incorporators: W. W. Leathers. J. B. Corby and R. E. Carr.

Los Angeles, Cal.-Vail Motor Car Company, with \$20,000 capital. Incorporators: W. L. Vail. C. H. Crawford, N. R. Va'l and J. V. Vickers.

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Automobile Calendar

August 19, 20, 21.—Automobile race meet, Indianapolis Motor Speedway.

August 22.—A series of Speed Trials, under the auspices of the Automobile Club of Frankfort-am-Main.

August 22-29.—Aeroplane Races at Rheims, France, under the auspices of the Aero Club

August 24-27.—Circuit of Ardennes; Liederkerke Cup and Voiturette Race, under the direction of Automobile Club of Belgium.

August 26, 27, 28.—Three Days' Endurance Contest, under the auspices of the Minnesota State Automobile Association.

August 27-28.—Second 24-Hour Race at Brighton Beach, under direction of the Motor Racing Association.

August 29-September 3.—Small Car Competition, under direction Automobile Club of Germnay.

September 4-5.—Mont Ventoux Hill-climbing Contest, under the auspices of the Vanclusien Automobile Club.

September 4-5-6.—Three-day's endurance contest, under the auspices of the Council Bluffs (Ia.) Automobile Club.

September 4-10.—Austrian Aero and Industrial Exhibition at Linz.

September 5.—Aeronautical events at the Indianapolis Motor Speedway grounds.

September 6-11.—Six Days' Motor Carnival, under the auspices of the Lowell (Mass.) Automobile Club.

September 6-11.—Automobile Show in Minneapolis, Minn., in connection with the Minnesota State Fair.

September 8.—Automobile Track Race at Richmond, Va., under the auspices of the Richmond Automobile Club.

September 11-19.—Florio Cup Race, under the auspices of the Automobile Club of Bologne,

September 12.—Two Automobile Road Races, under the auspices of the Automobile Club of Ostend.

September 15.—Start of Endurance Contest from Denver to Mexico City.

September 17.—Race for Light Cars on the Ostend Circuit, under the auspices of the Belgian Automobile Club.

September 18.—Decorated Automobile Parade at Denver, Colo., in connection with the second annual Colorado Inter-State Fair and Exposition.

September 18-October 3.—International Aero nautical Exposition at the Grand Palais, Paris.



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September 19.—Semmering Hill-climb.

- September 21.—Stock Car Sweepstakes on Long Island course, under direction of Motor Contest Association, W. J. Morgan, manager.
- September 21-23.—Good Roads Convention of the American Automobile Association at Cleveland, Ohio.
- September 21-29.—Frank A. Munsey reliability tour from Washington to Boston and return.
- September 24-25.— Twenty-four hour race and short distance events, Indianapolis Motor Speedway.
- September 25-October 8.—Aeronautical events in connection with the Hudson-Fulton celebration, New York.
- September 30.—Floral Automobile Parade, under direction of the Washington, D. C., Automobile Club.
- September 30-October 8.—Exhibition of aeronautic motor engines at Paris.
- October 2-17.—Aeronautical Salon in the Grand Palais, Paris, France.
- October 4.—Dirigible balloon and aeroplane events, under the direction of the Aero Club of St. Louis.
- October 7.—Second Annual Stock Chassis Race in Fairmount Park, Philadelphia, under the auspices of the Quaker City Motor Club.
- October 8-9.—National automobile race, Indianapolis Motor Speedway.
- October 16-31.—Automobile Show, to be held in City Park Armory, Dallas, Texas, in connection with the Texas State Fair.
- November 6 to 13.—National Automobile Show in Auditorium Armory at Atlanta, Ga. Auspices of National Association of Automobile Manufacturers. Samuel A. Miles and Alfred Reeves, managers, 7 East 42nd Street. New York.
- December 29-30.—Fourth Annual Mid-Winter Endurance Contest, under direction of the Quaker City Motor Club.
- December 31-January 7.—New York City, Grand Central Palace; Tenth International Automobile Show. Under management of the American Motor Car Manufacturers' Association with the Importers' Automobile Salon and the Motor and Accessory Manufacturers. Alfred Reeves, general manager, 505 Fifth Avenue, New York City.
- January 8-15.—Tenth Annual National Automobile Show in Madison Square Garden, New York, under the auspices of the Association of Licensed Automobile Manufacturers.
- February 5-12.—Ninth Annual National Automobile Show in Chicago, under the auspices of the National Association of Automobile Manufacturers.







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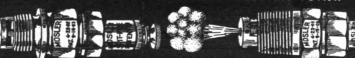
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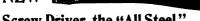
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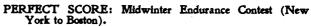
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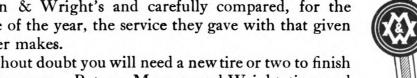
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SCORES of motorists who are this year using Morgan & Wright Tires as exclusive equipment on their cars were converted to them the latter part of last season. They replaced one or more of their worn-out casings with Morgan & Wright's and carefully compared, for the balance of the year, the service they gave with that given by other makes.

Without doubt you will need a new tire or two to finish out this season. Put on Morgan and Wright tires and watch them closely. It will show you a simple method of cutting down your car maintenance bills for next year.

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MORGAN & WRIGHT DETROIT





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Automobiles

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Joe Matson, and his Chalmers-Detroit "30," receiving the Indiana Trophy from President Ira M. Cobe, of the Chicago Automobile Club

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Over the 232.74 miles of the Crown Point-Lowell circuit that day Joseph Matson drove the Chalmers-Detroit "30" at an average speed of 51.5 miles per hour. In the Big Car Race the next day-when many cars with motors rated at twice the power of the "30" were entered, the winner's average was only 49.6 miles per hour.

Same Car You'd Get

This Indiana event was a ock car race. The "30" that stock car race.

won it was a stock car examined thoroughly and passed by the technical committee of the Chicago Automobile Club. It's exactly the same as any other "30" -the same as we'll sell to you for \$1500.

The Chalmers - Detroit "30" was a new car only a year ago. One could judge it only by the splendid records of the Chal-mers-Detroit "Forty."

It's main prestige lay in the fact that Howard E. Coffin de signed it-the man who designed our "Forty." But \$1500 was a new price—an amazing price. And everyone wondered what sort of car it would buy. Now the records of 1909 are in.

Another proof of the ability of the "30" to keep up speed is in the winning of the 202-mile road race over the Santa Monica. California, course on July 12th, at an average rate of 55.2 miles per hour.

Detroit, Mich. Mail your 1910 Catalog to---Address_ City County - --

A Memo to Chelmers-Detroit Motor Co.

One of our "30's" has been

run more than 32,000 miles, including the remarkable path-finding trip from Denver to Mexico City, through miles and

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these cars now means months of

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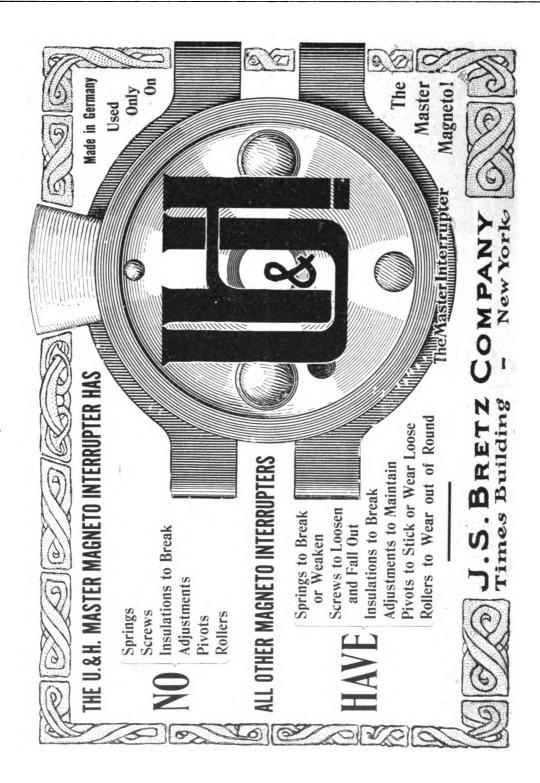
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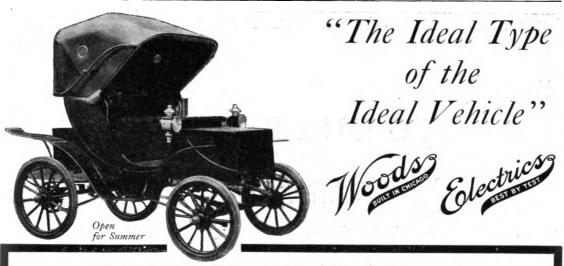
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AUTO TOPICS, NEW YORK

CHALMERS-DETROIT MOTOR CO., Detroit, Mich.

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With power stored by Exide Batteries (the strongest storage cells made), Woods Electrics will reel off 80 to 100 miles on a single charge---50 miles unconditionally guaranteed.

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They are absolutely dependable. You can "go as far as you like" with SOLARS. Insist upon

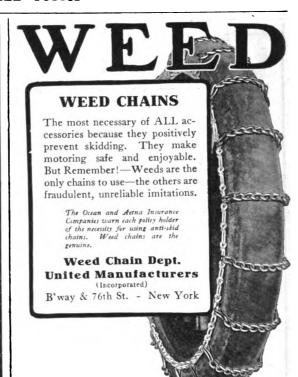
SOLARS. Insist upon getting them with your car---your dealer will see that they are furnished if you gently insist.

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Extra Heavy Non-Skid

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Triumph on the GLIDDEN

On the GLIDDEN TOUR, which ended at Kansas City, July 31st, the two Maxwell Cars equipped with AJAX TIRES finished the run of 2,700 miles from Detroit on the eight original casings and with only two punctures. Furthermore, these eight tires were identically the same tires which carried these cars from the Maxwell factory at Tarrytown, N. Y.; overland to Detroit, a distance of about 800 miles. Think of it! 3,500 miles of continuous running over some of the worst roads in the world and only two punctures at a retail repair cost of 50 cents!

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Original Air

Further convincing evidence of the superiority of AJAX Extra Heavy Non-Skid Tires has been given by the wonderful performance of three AJAX casings and tubes on the Maxwell car recently driven by Mrs. Ramsay from New York to San Francisco, 4,200 miles, over all sorts of conditions and roads, with three of the tires running into San Francisco on New York air. The fourth tire had only a slight puncture.

AJAX TIRES are guaranteed for 5000 miles or 200 days' service. Write for a copy of the Guarantee.

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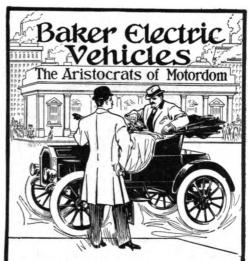
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We Want Reliable and Progressive Agencies

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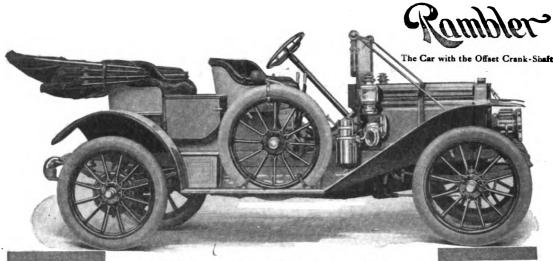
Gentlemen's Runabout—(The Electric sensation of 1909.)

Lady's Coupé-(roomy four passenger car.) Queen Victorias, Landaulets, Broughams, Surreys and Commercial vehicles.

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Model Forty-four, Four-Passenger Car, \$2,250.
With Magneto, Lamps, and Tools.

The Four-Passenger Rambler

This Rambler was designed for the man who desires a car with snap and class in appearance and of somewhat lesser weight than the touring model.

Its handy size, weight, and capacity makes it a more convenient "get-about" car.

Because the seats are closer together the occupants can more comfortably visit with each other.

Combined with these advantages is a pleasing individuality that will give the owner justifiable pride and satisfaction in its ownership.

Regularly provided with four individual bucket seats. Plain or individual rear seat optional.

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THE CAR OF STEADY SERVICE



NEW YORK, AUGUST 28, 1909, Vol. XVIII. No. 21. TABLE OF CONTENTS PAGE Start of 250-Mile Race at the Indianapolis Speedway......Frontispiece 1392 Death Marks Indianapolis Speedway Opening......Illustrated 1308 Delay and Bad Course Mar Long Branch Events...... 1406 Dixie II. Proves Invincible at Alexandria Bay...... 1407 Automobile Topics Touring Supplement—1909 A. A. A. Tour. Section 7—Denver The Speedway Editorial 1436

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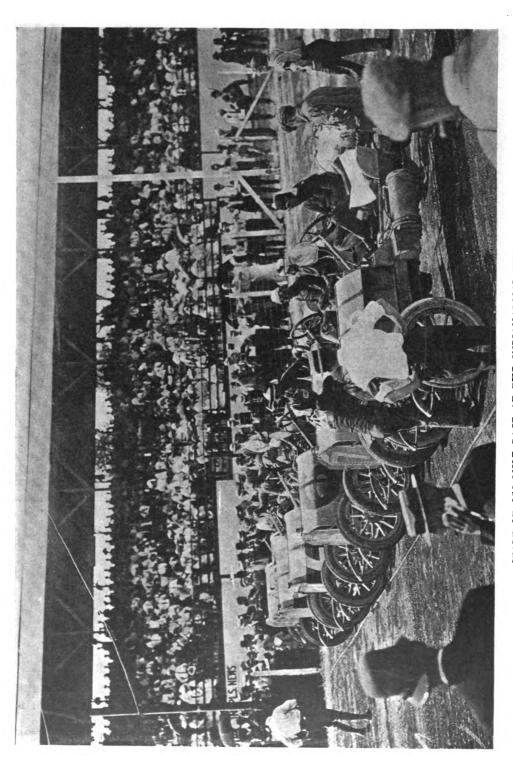
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THE AUTOMOBILE USERS' WEEKLY

Vol. XVIII.

NEW YORK, AUGUST 28, 1909.

No. 21.

TOPICS

One of the noteworthy signs of the times is the remarkable increase in the number of taxicabs used in cities and large towns. This

increase must continue for a considerable time to come, and it is evident that some method of regulating and controlling the use of this enormous number of vehicles must be devised. Even now the necessity for such regulations is great and constantly growing. Aside from the disposition of the taxicab drivers who charge more than the legal rates of fare—which is a matter that chiefly concerns the use—the two things most open to complaint are the recklessness and carelessness of the drivers and the disposition of the taxicabs to emit smoke from their exhausts. The latter offense, if only occasional, can be condoned in the case of ordinary cars, for a smoky exhaust is usually an indication of two generous lubrication. New York and a few other cities have ordinances prohibiting the emission of smoke, and they are enforced with sufficient strictness to serve the purpose had in view when the ordinances were passed. there is need of drawing the lines more rigidly where taxicabs are concerned. They are habitual violators, and their drivers frequently take delight in aggravating matters and leaving behind them a wake of vile-smelling smoke that hangs in the air for minutes after they have passed. They become over indifferent in the matter, and more regardless of the ordinance every day that they are permitted to violate the latter with impunity. A halt should be called, and that speedily.

The reckless and careless chauffeur, however, is not only a nuisance, but a positive menace to the community. Most taxicab drivers are careless and reckless, and the cause is frequently incompetence. Returning prosperity is making it more difficult to retain, or obtain, competent taxicab drivers, and the result is that men are employed who a short time ago would have been rejected forthwith. But the taxicab companies must have drivers, and they take what they can get, relying upon time and training to make the new employees competent. The

public suffers during the breaking-in process, as a matter of course. All it can do is to insist that everything possible be done to safeguard it and to prevent the exhibition of recklessness at all times. The incompetent driver should be required to exercise more than the usual care in the beginning, and to avoid recklessness when he becomes more proficient.

The notorious Frelinghuysen, of New Jersey, has broken out afresh. He took occasion the other day, at a banquet tendered Governor Fort and devoted to the booming of the boulevard from Atlantic Highlands to Cape May, to make the assertion that the automobile license fees in New Jersey should be revised and increased. He added that, if he had his way, automobiles should be taxed according to weight. If motorists had their way, something would happen to Frelinghuysen that would not be pleasant—to him.

That nothing has been overlooked in the equipment of the Indianapolis Speedway is evidenced by the fact that there are two jails connected with it. It is a safe prediction that speeding will not be the offense which will bring most of the prisoners behind the bars.

A case of malicious highway obstruction, which is of considerable importance, has been decided in the Racine, Wis., municipal court. The complaint was made by a motorist who charged that while returning from Milwaukee with a party of three ladies and his driver, the defendant, a farmer, refused to permit him to pass, and drove his horse in a manner that unduly blockaded the highway. A snail pace was kept up for fifty-five minutes, a distance of only five miles being covered by both horse and touring car. Each time the motorist attempted to pass the farmer drove his horse across the highway. The case has been appealed.

It is proposed to name one of the streets of Berlin "Bleriot." Thus will Sedan be avenged.

"The man who left a \$72,000 job to make automobiles," is the way a prominent manufacturer is referred to by the publicity promoter of a body before which the manufacturer in question was billed to make a speech. Few men have \$72,000 jobs, and fewer yet would leave them even for such a lucrative employment as the making of automobiles. Strange to say, however, there has been no regret evinced by the fortunate gentleman under discussion.

The French Chamber of Deputies has decided to increase to \$100,000 the credit asked by the Minister of War for the purchase and maintenance of military dirigible balloons. Well, our government has purchased a Whight machine. That is at least a beginning.

A garage keeper at Worcester, Mass., was overwhelmed the other day by the receipt of a novel gift. Two men rode up in a car and insisted on leaving it with the garage keeper, telling him that unless they returned for it within three months it was his property. Then they boarded a train for New York, leaving the astonished garage keeper to ponder over the occurrence.

Paulhan, 26-Year-Old Frenchman, Surpasses all Flight Records

Great doings have marked the wonderful "Week of Aviation," which began at Rheims, France, on August 22 and will end on August 29, and as AUTOMOBILE TOPICS goes to press the world is ringing with the news of the remarkable flight of Louis Paulhan, a 26-year-old Frenchman who, on Wednesday, August 25, in a Voisin biplane of the cellular or box kite type, broke the world's record by flying about 83 miles in 2 hours, 53 minutes and 24 seconds. This flight surpasses in time and distance the record made by Wilbur Wright at Le Mans on December 32, when he was in the air 2 hours, 20 minutes and 23 1-5 seconds, and traveled 73 Paulhan's flight also surpasses Roger Sommer's unofficial time of 2 hours, 27 minutes and 15 seconds, made at Mourmelon-le-Grand on August 7.

The record made at Rheims is all the more remarkable because, during twenty minutes of the time, Paulhan had to contend with a heavy rain and wind storm. In his flight the record-breaking French aviator circled the 6 1-5-mile course thirteen times, and only came to earth because his gasolene supply was exhausted. After refilling his tank he again soared in the air and flew to a landing spot in front of the grand stand, where, after a graceful descent, he received an ovation from his countryme 1.

Paulhan's steady flight in a wind varying from fifteen to twenty miles an hour was shown by the time made in each round. The time for a circuit averaged about 12 minutes, the fastest one being the final, when he negotiated the 6 1-5 miles in 11.4 minutes, and the slowest, the tenth round, when he took 13.88 minutes to make the circuit. This increase in time was caused by the wind driving Paulhan past one corner post on the inside instead of on the outside.

Starting shortly before 4 o'click in

the afternoon, in a twelve-knot breeze, with the avowed intention of completing the fifty kilometres before an hour had elapsed, in order to bar his less venturesome rivals for the Prix de la Champagne, who desired to await calmer air, Paulhan, having accomplished his original purpose, continued to circle Bethney Plains until he was compelled to descend to replenish his gasolene supply.

The flight was of the most exciting kind. All went smoothly with the kite-like machine, and the course was circled at a consistent speed, until the eleventh round, when Paulhan had to battle with an adverse wind. When the aeroplane caught the wind in this round it pitched and tossed like a ship at sea.

Great excitement prevailed as the time approached, when it was evident that he would beat the Wright record. time he passed the crowd ran out of the tribunes, cheering and shouting words encouragement. The Americans present were not less enthusiastic than French themselves. Latham, Le Blanc, Rougier, Tissandier, Bleriot, Gobron and Bunan-Varilla all made flights while Paulhan circled the course, but they were almost unnoticed, so great was the interest in Paulhan's performance.

The machine which Paulhan piloted is a Voisin biplane and has a seven-cylinder Gnome motor, the engine of which, with the propellers affixed to it, revolves around a fixed axle, thus affording its own cooling. The machine is a prize won by Paulhan at a toy aeroplane exhibition some months ago. Paulhan is only 26 years old.

Paulhan's performance was the principal happening of the day. The former automobile race driver, Fournier, met with an accident in his Voisin, but was uninjured. Glenn Curtiss, the lone

representative of America at the meet, tried to cut down Bleriot's record of 8 minutes, 4 2-5 seconds for once around the course, but could only come within 7 1-5 seconds of it. This bettered his own previous record by 24 seconds.

The "aviation week" meet commenced on Sunday, August 22, but the rain of the day previous put a damper on the affair, and it was not until late in the afternoon that any general attempt at flights was made by the aviators. Then, for the first time in the history of aerial navigation, were six aeroplanes seen in flight at the same time.

The Wright biplanes made a great showing on the opening day, when they finished first, second and third in the speed prize for three rounds of the course. The following was the result: Tissandier, 28 minutes, 59 seconds; Count de Lambert, 29.32; Le Febvre, 29.09; Paulhan, 32.49; Sommer, 79.33. For the once around the track prize Le Febvre established a world's record by doing the 6 miles in 8 minutes, 58 4-5 seconds.

The honors for the second day of the meet were divided by Glenn H. Curtiss and Louis Paulhan. The former, in a flight just before the close of the day's contests, lowered the speed record for the course made by Bleriot earlier in the afternoon. The American aviator, in his American machine, completed one circuit of the course in 8 minutes, 35 3-5 seconds, beating Bleriot's time by 6 4-5 seconds. The weather conditions suited Mr. Curtiss perfectly.

The first veritable race in the air began at 4.32, when Paulhan, in a Voison machine, started a flight for the Champagne prize, followed two minutes later by Le Febvre, in a Wright biplane, and Sommer, in a Farman, five minutes after Le Febvre. Sommer dropped out during the first round. Le Febvre came down in the third round, after two rounds of exciting racing. Paulhan

continued until he had completed nearly six rounds, covering, officially, 35 miles in 58 minutes and 48 seconds. Many of the other aviators on the plains took flights, but those of Curtiss and Paulhan were the most remarkable.

As the regulations for the Chanipagne prize required each competitor to at least cross the starting line on the second day, although he will be allowed to try to better his record on the three other days during which it is on the program, no less than twenty starts were made during the afternoon of Monday. Many of the starters did not go very far, and by evening the countryside was dotted with aeroplanes more or less damaged. Curtiss said he saw at least six of these as he passed around the course on his record-breaking flight.

Glenn Curtiss was destined not to hold the speed record he made on Monday for any length of time, for during the last few minutes of the third day of the meet (Tuesday) Bleriot, in his 20 hp. monoplane, did one circuit of the course in 8 minutes, 4 2-5 seconds, averaging 74.318 kilometers, or nearly 46½ miles an hour. This time cut 31 1-5 seconds from the record made by Curtiss.

The third day's flights were witnessed by President Fallieres, and the French aviators did some fine work before their chief executive. Paulhan again made a fine flight, when he circled the course three times. His time was 28 minutes. 12 2-5 seconds, or more than 5 minutes faster than his record of the first day. During this flight Paulhan raced a railroad train down one side of the track, and passed it. At times Paulhan reached a height of about 250 feet.

Latham made two attempts at flights during the day, and on the second attempt. flew three times around the course in 30 minutes, 2 1-5 seconds.

Vanderbilt Race May be Run This Year

There may be a Vanderbilt race this year after all—a race with the time-honored name retained, but with the conditions revised and the contesting vehicles composed of stock chassis instead of racing cars. This is the outcome of efforts that have been in the making for some time to resuscitate the classic event.

Everything depends on the receipt of sufficient entries. If they are forthcoming the race will be run late in October. The story is told in a statement sent out by the Manufacturers' Contest Association on August 25, as follows:

"H. E. Coffin, chairman of the General Rules Committee of the Manufacturers' Contest Association, has notified the prominent makers of the country that a race for the Vanderbilt Cup will be held during the latter part of October if a sufficient number of entries to insure its success are pledged on or before September 1. A hasty canvass of the situation is now being made by teicgraph from the office of the assistant secretary treasurer of the M. C. A, 1,777 Broadway, New York City.

"If the makers guarantee the minimum number of entries required the race will be conducted by a new association formed pursuant to the A. C. A.-A. A. A. peace agreement, which association will assume the custody of both

the Vanderbilt Cup and the Grand Prize Cup. The actual incorporation of this holding body will take place when the Vanderbilt race of this year is assured. In its membership are men of national importance in automobile matters.

"By a change in the deed of gift, the Vanderbilt Cup will become one for stock chassis competition under piston displacement classifications recommended by the Manufacturers' Contest Association as follows:

1.—The Vanderbilt Cup race shall be open to cars of Sub-Classes I (451 to 600 cubic inches piston displacement), and 2 (301 to 450 cubic inches piston displacement) in Class B, under the classifications of the A. A. A. racing rules.

2.—A cup will be offered for Class 3 (231 to 300 cubic inches piston displacement and another for Class A (161 to 230 cubic inches piston displacement) under the same classifications, these races to be run at the same time and on the same course, but for shorter distances.

If the Vanderbilt race is held, it will be run over the part of the Long Island Motor Parkway used in the cup event of 1908, with probably the same county and town roads. There is a possibility of the course being shortened by about four miles. This would greatly simplify the matter of proper guarding and enhance the event from a spectator's standpoint. The race, if held, will be sanctioned by the A. A. A.

Get Permission to Race on Long Island

The town boards of Riverhead and Southold, Long Island, granted permission on Tuesday, August 24, to W. J. Morgan and several others to use the roads of the Riverhead circuit for a stock car race on September 21. The permission was granted at a joint meeting of the boards at Riverhead.

The promoters will be required to file. a \$25,000 bond to guarantee the town

authorities against damage to the roads or individuals that may occur during the race. The promoters will also supply the town officials with oil or some other suitable mixture to be sprinkled on the roads to put them in condition for racing and to prevent dust. The town boards have agreed to permit contestants to practice for ten days before the race, from 5 to 7 A. M.

Death Marks Indianapolis Speedway Opening

Indianapolis, Ind., Aug. 21.—The greatest sacrifices in all motor history have just been made—sacrifices of life, sacrifices of speed, sacrifices of machines. Never has any test or series of tests of the motor vehicle called forth so much from makers, drivers and machines as has the three-days' racing carnival just ended at the Indianapolis Motor Speedway.

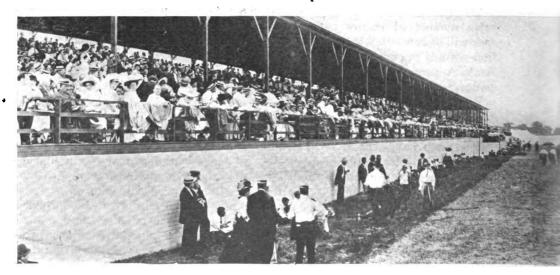
Heralded as being the fastest track ever constructed, it was but natural that this great course would instill in the mind and nerve of every contestant the desire to grasp the high honors of his profession from those made on other tracks—and many of the drivers did it. But at an awful sacrifice.

That the speedway has the making of a great track is undeniable, but that it was a track of death in the condition upon which the races were held is equally undeniable. And this in the greatest measure accounts for the depressing phase of the meet. Urged and fairly goaded on to win, win, win, the men behind the wheels threw caution to the winds and drove over a course far

worse than most country road courses, at a rate of speed in almost every event never before equalled on any track in this country.

It was this awful mania for speed coupled with the fact that the track was literally filled with deep holes and awful ruts (and the last day with thick oil) that is responsible for the casualties.

In a trip over the course at the close of the 300-mile event to-day, holes were found six and eight inches deep and fully twelve to fifteen square feet wide, scattered all over the track. Ruts ten to twelve inches deep and many feet long were common occurrences. country road from Indianapolis to the Speedway was nearly as much more smooth and even than the speedway proper, as a ballroom is smoother than a barn floor. In addition to these ruts the surface of the speedway presented as undulating a condition as does the surface of a storm-tossed sea—of course, in a lesser degree, but sufficient to have called for more stamina and endurance in both men and machines than has ever been required before.



FINISH OF THE 50-MILE RACE ON THE SECOND DAY-SCHWITZER

De Palma, Oldfield, Christie, Lytie, Strang, Burman, Chevrolet-all these and others openly said that they had never in their lives driven a road race that was harder than this track race. And in spite of all the statements or accounts of what happened that have been given out there is just one incontrovertible fact staring everybody in the face, and that is this: Had the track been built with a sloping bank of twelve to fifteen feet on both sides of the track proper and all the way round it, had the deep tile ditch at the north end been closed, as it should have been long before the race started, and had the races not been held until the track was ready for racing, the chances are that no lives would have been sacrificed. True enough, 300 miles, or 200 miles or anything over 100 miles, seems to be too long for a track race, but even at that, faulty track and faulty track construction seem to be the real cause of all the tragedies of the opening meet on the speedway.

Of the racing end itself there is but one conclusion. It was the greatest success that has ever been witnessed in this country. Record after record was broken, only to be rebroken a little later, until speed marks heretofore undreamed of were hung up in profusion. Then, too, the vast crowds that thronged the stands and grounds were treated to driving spectacles, the equal of which probably never were before produced. The course was handled in grand style, thanks to the particular efficiency of Director of Contests E. A. Morross, and to Starter Fred Wagner, who excelled himself at this meet.

The meet started on Thursday, August 19, and lasted through the three days of the week. The following officials had charge of the affair:

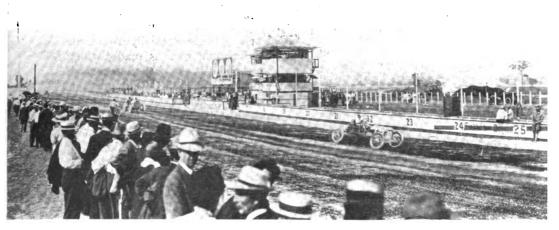
Committee of Management.—Carl G. Fisher, president; A. C. Newby, first vice-president; F. H. Wheeler, second vice-president; J. A. Allison, secretary and treasurer.

Honorary Referee. Lewis R. Speare, president of the A. A. A., Boston. Mass.

Referee.—F. B. Stevens, A. A. A., Rome, N. Y.

Paddock Managers.—F. E. Edwards, Chicago; W. J. Smith, Indianapolis, Ind.

Starter.—F. J. Wagner, New York, N. Y. Announcer.—E. A. Moross, Automobile Club of Maryland.



(STODDARD-DAYTON) WINNING, WRIGHT (STODDARD-DAYTON) SECOND

Board of Judges.—F. H. Elliott, secretary A. A. A., New York City; C. H. Heeker, president of the Detro.t Automoble Club; Frank Remy, Anderson, Ind.

Board of Timers.—E. H. Warner, Frank Trego, G. M. Cobb, F. C. Donald.

Board of Handicappers.—F. A. Barker, Thomas Hay, Chicago; W. J. Bowman.

Surgical Staff Director.—Dr. Frank R. Allen.

Chief Engineer and Superintendent of Construction.—P. T. Andrews.



WILLIAM BOURQUE AS HE CAME OUT FOR HIS LAST RACE

Board of Umpires.—Henry Ford, Detroit; C. M. Wainwright, H. G. Donald.

Board of Scorers.—A. G. Batchelder, New York; H. D. Weller, H. L. Henckel, J. A. Barclay, B. G. Saltzgaber, J. R. Nadall, Chicago; W. H. Brown, Harold King. Timing Director.—Walter Baker, C. A.

C., Cleveland.

Scoring Director.—John Cox, Terre Haute.

Technical Committee.—David Beecroft, Chicago; Frank M. Joice, Minneapolis.

Clerks of Course.—Charles P. Root, Chicago Motor Club; O. G. Temme.

Press Board.—Paul P. Willis, Star; Roland R. Mellett, News; Harry G. Copeland, Star; James Kelly, Sun.

Military Board.—Captain E. P. Carpenter, Captain P. A. Davis, Lieutenant M. Levy.

Drivers Committee.—C. G. Sinsabaugh, Chicago.

Chairman of Contest Board.—F. B. Hower, A. A. A., Buffalo, N. Y.

Representative of the Racing Board.— C. W. Sedwick, Indianapolis, Ind. Ambulance Service.—A. M. Ragsdale Company.

Assistant Announcers.—W. H. Wellman, W. S. Gilbreath.

Director of Contests.—E. A. Moross.

It must be remembered that this track measures 2½ miles around, and that, naturally, it is much faster than a one-mile track. This is especially true in the case of the mile records made, which are timed from back of the last stretch to the timers' stand, and which are consequently made with only one turn and that a wide and broad one.

Of principal interest on the opening day was the record made by Oldfield in his big Benz, which he hurled around the track for a mile in .43.1, as against De Palma's circular mile time in a Fiat at St. Paul of .51, and Webb Jay's unofficial .48.2. The second record to be hung up was that of ten miles, by Chev-



THE BAD FIRST TURN-DE PALMA ROUNDING IT

rolet in his Buick. This he made in 8.56.4, reducing Oldfield's Empire City figures of 9.12.6.

Five cars started in the first race, five miles, 161 to 230 cubic inches displacement. Schwitzer in a Stoddard-Dayton won, Wright in a Stoddard-Dayton second, De Witt in a Buick third; time, 5.13.4.

Eight cars started in the second eveut, ten miles, 231 to 300 cubic inches displacement. This finally narrowed down to a Buick race, with the three drivers, Chevrolet, Strang and Burman, leading most of the way. Chevrolet finally won in record time, with Strang second and Burman third, in 8.56.4.

The third event, five miles, 301 to 450 cubic inches displacement, proved to be Billy Bourque's last victory and last completed race. This was a beautiful and game struggle from the start. Nine cars faced Wagner on a flying start, but they were badly strung and so were called back for a start from the tape. All the way Strang and Chevrolet led Bourque by inches until the stretch of the first lap; then Burman in his Buick, and Miller in the Stoddard-Dayton, spurted ahead, all closely bunched at the wire. Bourque and Burman finally pulled a few feet ahead of the bunch

and all on the last two miles fought it out nose and nose, Bourque passing Burman at the last turn and maintaining a few feet lead over the tape. Time, 4.45.2.

Fourteen cars started in the fourth event, a free-for-all ten-mile handicap. This was won by Harroun, in a Marmon, with 1.45 handicap, in 8.22.5. Lynch, in a Jackson, same handicap, was second, and Merz, in a National six, with 35 seconds, was third. Merz's drive in the National was a beauty, and 100 yards more distance would have given him first place easily.

The last event of the day, the 250-mile, 301 to 450 cubic inches displacement event for the Prest-O-Lite trophy caused the death of Bourque and his mechanician, Harry Holcombe, when they drove into an open tile ditch after swerving from the track. There were nine starters.

The race was won by Burman in his Buick 34, in time of 4.38.57.4. Second went to Clements in a Stoddard-Dayton No. 61, in time of 4.46.01.8. Third went to Merz in National No. 7, in time of 4.57.09.7.

The progress of the race follows:

Order of cars at the end of fifty miles—37. Buick (Chevrolet), time 46.54: 35.

Buick (Burman), time 47.05.5; 36, Buick (Strang), time 48.05.8.

At the end of 100 miles—37. Buick Chevrolet), time 1.32.18.9; 35, Buick (Burman), time 1.37.31.5; 7, National (Merz), time 1.38.11.7.

At the end of 150 miles—35, Buick (Burman), time 2.27.32.8; 6, National (Kincaid), time 2.36.30.3; 53, Jackson (House), time 2.37.53.3.

At end of 200 miles—35, Buick (Burman), time 3.24.13.4: 53, Jackson (House), time 3.28.47.9: 61, Stoddard-Dayton (Clements), time 3.52.04.5.

At end of 225 miles—35, Buick (Burman), time 4.10.27.2; 61, Stoddard-Dayton (Clements), time 4.19.00.5; 6, National (Kincaid), time 4.25.16.

At end of 250 miles—Buick (Burman), time 4.38.57.4; Stoddard-Dayton (Clements), time 4.46.1.8; National (Merz), time 4.57.9.7.

Kincaid, in National No. 6, lost his gasolene tank in his last lap, thus keeping him from getting third place.

The second day's events were pulled off with no serious accidents to mar them, and they constituted by far the most enjoyable day of the meet, being marked by pretty contests.

Records galore were smashed. Zengle in his Chadwick did ten miles in 8.23.2, breaking the mark set the day before by Chevrolet. Aitken in his National took away a mark from De Palma by doing five miles in 4.25 flat, as against the old Providence mark of 4.26. Louis Strang, in the 100-mile event, broke everything from 20 to and including 100 miles, which he completed in 1.32.48.5, as against Burman's 1.44 made this summer in Columbus.

Trials against time opened the day. Oldfield just equalled his record of the day previous in the Benz. Zengle in the Chadwick did .49.3, and De Palma in Eddie Hearne's Fiat did .46.6.

Strang in a Buick took the second event, five miles, 231 to 300 cubic inches displacement, with ease against four starters in 4.48. Chevrolet in a Buick second; Stutz in a Marmon third.

Seven started in the third event, ten miles, 301 to 450 cubic inches displacement. Merz in a National drove a leading race all the way and won easily, with Chevrolet in a Buick second, and De Hymel in a Stoddard-Dayton third. Time, 9.16.

Aitken in a National took down the fourth event, ten miles, for cars entered in the 300-mile event on Saturday. He won this in 9.26.6, just beating out Lytle in an Apperson, with Mulford in a Lozier third. There were eight starters.

Only five starters faced the starter for the fifty-mile event for cars of 161 to 230 cubic inches displacement—two Stoddard-Daytons, two Buicks, and a Velie. Wright in one Stoddard-Dayton, in 59.23.1, won an easy race, defeating Schwitzer in another Stoddard, his only remaining competitor, at the end of the fifty miles.

Event No. 6, ten mile free-for-ail, saw Zengle lower the ten mile record in his Chadwick, by winning in 8.23. Ait-ken in a National was second, and Ford in a Stearns car third.

The seventh event, five mile free-forall handicap, proved to be the most exciting finish of the day. Twelve cars started and twelve finished, all more or less bunched except the two Nationals, the drivers of which are still arguing about first place. The race was given to Aitken in a National, with Merz second in his National, in the world's record time of 4.25. The race looked like a dead heat for the two Nationals, but the timers caught a hundredth of a second difference between them. Miller in a Stoddard-Dayton, was third.

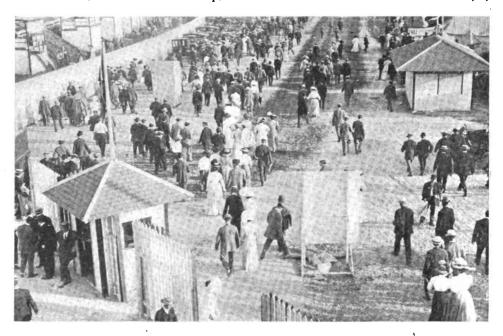
The last event of the day, 100 miles, 231 to 300 cubic inches displacement, was one of the grandest drives of the meet. It was won by Strang in the record time of 1.32.48.5. It was in this race that Strang broke every ten mile record after the first twenty. De Witt

in a Buick was second and Stillman in a Marmon third. Strang never faltered from start to finish, and never was in danger of being headed, barring accidents.

Walter Christie made his first appearance on Saturday, doing a kilometer in .28.7. Oldfield, however, beat this in his Benz by covering the distance in .26.2. The first race, fifteen-mile free-for-all handicap, was won by Kincaid, in a National, with 1 min. handicap, his

far as he was concerned, and here he did it with a vengeance, smashing five records with his big Benz. He won the event in 21.27.7, breaking the record of De Palma, made in a Fiat of 23.35, at Boston, June 17, 1909. De Palma in his Fiat Cyclone came second, and Zengel in his Chadwick third.

When the first five miles had been reeled off beneath Oldfield's car, he had hung up the time of 4.11.3, beating the record of Aitken in a National of 4.25



LEAVING THE SPEEDWAY AFTER THE RACES

corrected time being 13.23.5. De Palma in a Fiat, scratch car, was second, with Stillman in a Marmon third.

Eddie Hearne had little trouble in winning the ten-mile amateur championship of America in his Fiat, in 9.44.3; Greiner in a Thomas, Ryall in a Buick, and Cameron in a Stearns were never close.

It was in the twenty-five-mile freefor-all open for the famous Remy Grand Brassard that Barney Oldfield did the only real work of the meet so flat established Friday on the speedway. In ten miles Oldfield sent to splinters the record of 8.23 1-5 held by Zengel in a Chadwick, made Friday on the speedway, by beating it with 8.15.9. For twenty miles he made the time of 16.53.8, beating the record of 18.41.7, made by Strang in a Buick Friday on the speedway.

The other entries in the race were De Palma in Eddie Hearne's Fiat, and Zengle in a Chadwick. De Palma had to use the stock Fiat in all the races because he found it impossible to hold his Cyclone on the terrible track.

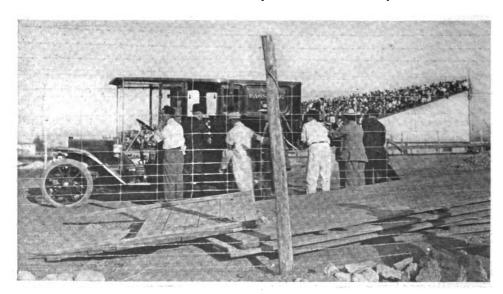
It remained for the last race of the day, the closing race of the meet, to climax all former events, both in spectacular work and in death results. It was the 300-mile open to all cars under 600 cubic inches displacement for the valuable Wheeler-Schebler trophy. After three people had been killed when a National flew over a bridge and the Marmon had crashed into another bridge post, the race was declared off at the end of 235 miles, with the Jackson, Lynch driving, first; De Palma in a Fiat second, and Stillman in a Marmon, third.

There were sixteen starters in this event and the first 100 miles witnessed a wonderful drive by Aitken in a National, also the establishing of a new 100-mile mark of 1.31.49.1 by the same driver. Shortly after this record was hung up cylinder No. 4 cracked across the top and the car had to be withdrawn.

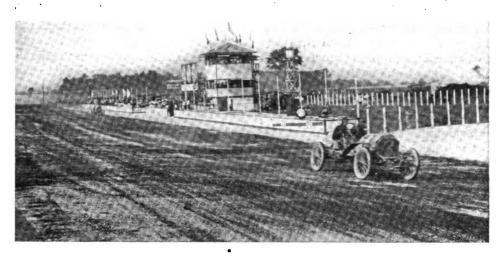
In the twenty-fourth lap, Lytle furnished a thrill that was miraculous in

that death or injury did not result. The tie bar in his steerage system broke just as he passed the pits. Running wild, the car started up the banked turn, running straight for the club stands. Almost at the top, the wheels swung in, turning the nose of the car toward the lower edge of the track. By this time Lytle had gradually lessened the speed of the car, so that when it crashed into a big bank of soft earth, it only threw the machinician out for forty or fifty feet and harmed nobody. Lytle gamely went to work, dug out his car, replaced the steering column with a new one and resumed the race.

With Aitken out of the race in the 105th mile, Burman took the lead, which he held till the end of 123 miles, when he, too, withdrew. Both Strang and Chevrolet, in Buicks, had previously been forced to quit with broken cars. Merz then went ahead in his National, with De Palma second. Merz was soon put out by a break down of his battery on the back stretch. His mechanician, "Red" Lyne, ran the mile or more to the pits for a new battery, and after mak-



THE AMBULANCE IN ACTUAL USE



BOURQUE WINNING THE FIVE-MILE RACE

ing known his errand, fell in a swoon. This saved his life, for Claude Kellum, who had been driving with Aitken until his car broke down, was sent back with the battery. Kellum was killed when Merz went over the bridge in the fatal accident of the day.

At the end of 150 miles Lynch in the Jackson was still ahead, with De Palma in the Fiat second, and Stillman in the Marmon third. These positions were not changed at the time and the race was called off, at the end of the ninety-fourth lap.



AFTER THE FATAL ACCIDENT TO BOURQUE

Delay and Bad Course Mar Long Branch Events

Automobile contests held in connection with the first annual carnival held under the auspices of the Long Branch (N. J.) Board of Trade, on August 21, were anything but successful. They consisted of time trials and a decorated car parade along Ocean Avenue, a two-mile straightaway.

The trotting races which preceded the automobile time trials did not start until long after 3 o'clock, delaying the start of the motor races for an hour and three-quarters. The long delay caused many of the people to leave before the automobile events started.

The Simplex, the first car sent over the course, was driven by Robert T. Heitemeyer and completed the mile course in 52 seconds, the best time of the day. The course was in rough condition previous to the horse races and the times made by the automobiles di-1 not come up to that made this year and last year on Hillside Avenue, Jamaica. The first event was for cars selling for \$4,001 and over, and Heitemeyer in the Simplex took the Walter Lewisohn trophy which was offered for this class. Frank Lescault, driving a Palmer & Singer, an added starter, finished second in 56 seconds, while an Isotta Fraschini, driven by Tom Pepperly, was third in 57 seconds.

Only two cars were entered in the class for cars selling from \$3,001 to \$4,000. The Allen-Kingston driven by Hugh Hughes won the Eugene Meyer, Jr., trophy, the prize for the class, finishing the mile in 55 seconds. A Packard, driven by A. H. Osborn, was the other car in this class, and it was timed at 1.04. The next event was the contest for the Graf Garage trophy, open to cars selling from \$2,001 to \$3,000. Michael Batts in an S. P. O. won in this class, completing the mile in 59 seconds, while his nearest competitor, a Pope-

Hartford, driven by Charles Beach, was one second slower.

In the cars selling from \$2,001 to \$3,000, L. R. Burne in a Cadillac won the Montifiore G. Kahn trophy in 1 minute 8 seconds. The times of the other starters were: R. Bloome, Marion, 1.11; Joseph Trehon, Mercer, 1.12; Inglis M. Uppercue, Cadillac, 1.16; C. A. Reene, Mercer, 1.18. L. A. Kissling. driving an E-M-F., won the next event for cars selling from \$851 to \$1,250, for which the Columbus Garage offered a trophy. Kissling's time was 1.29. Joseph G. Mayer in a Buick was timed at There were no entries for the class for cars selling for less than \$850.

The next event, the free-for-all, was the principal event of the day, and fast time was expected of the cars entered. In practice spins some of the cars had been credited with negotiating the course at time averaging close to 100 miles an hour, but the performances on August 14 were far from being of the record breaking kind. Inglis M. Uppercue in a 90 hp. Fiat was the first to be sent down the course in this event by starter "Jack" Connell and he covered the distance in 1.01. The 70 hp. Simplex, driven by R. T. Heitemeyer, was next, and was timed at 52 seconds. H. Goss, 90 hp. Mercedes, was timed at 1.07; Washington A. Roebling 2d, in a Roebling, negotiated the mile in 53 seconds.

It was so late when the races ended that entrants in the decorated automobile parade simmered down to eight. While the parade was a short one it was one of the most beautiful seen in that section of New Jersey in some time. First prize, a handsome silver loving cup was won by Harry F. Guggenheim's car decorated to represent a swan. The decorations consisted of 4.000 lilac hydrangeas.

Dixie II. Proves Invincible at Alexandria Bay

This year's races for the American Power Boat Association's Gold Challenge Cup at Alexandria Bay, N. Y., resulted in the Dixie II., representing the Thousand Island Yacht Club, retaining the cup after a series of races in which she had everything her own way. The contests were held on August 19, 20, and 21, and besides successfully defending the cup the Dixie II. established a new fresh water record when, on the last day of the races, she negotiated the thirty-two mile course in 58 minutes 15 seconds, an average of over 32 miles an hour.

The list of contestants was decreased by two when the Courier II. of the Buffalo Motorboat Club failed to appear at the start and the Pawnee of the Clayton Yacht Club was withdrawn. This left four boats to contest for the cup. They were the Dixie II., Thousand Islands Y. C.; Duquesne, Frontenac Y. C; Stranger, Chippewa Bay Y. C., and Jan, Gananoque Club.

The opening race on August 19 was started in a driving rainstorm which abated after the boats had covered about half the course. At the start the Duquesne went to the front, but the Dixie II. soon overhauled her and from them on the defender was never headed. The Dixie II. finished the thirty-two miles almost a mile in advance of the Duquesne, while the Stranger was third with the Jan trailing in last. The winner's time was 1.03.56.

On Friday, the Dixie II. repeated the performance of the day previous, and simply ran away from her competitors, after going to the front in the tenth mile. The order of finish was the same as on the first day. Owing to the choppy sea during the early stages of the race, the time, 1.06.50, was slower than on the first day.

While the defending boat took things easy on the first two days, she out-classed her competitors in the final race and led from start to finish. It was in this race that she established a new record for fresh water, when she completed the distance in 58 minutes 15 seconds. The other boats finished in the same positions as on the previous day.

Program for Motor Boat Racing Carnival

Entry blanks for the racing events to be held in connection with the National Motor Boat Carnival, which is to occur on the Hudson River, just above New York City, September 15 to 18, have been issued. The carnival is to be held under the auspices of the Motor Boat Club of America and the New York Motor Boat Club, and the starting point will be the club house of the latter body at 147th Street.

The first three days will be devoted to series racing, while on the last day two long-distance races will be held. One of these is for racing craft to Poughkeepsie and return, a distance of approximatly 145 miles. The second long-distance race will be open to cruisers and will run to Peekskill and return, a distance of about sixty miles. Both of these big races start at 9.30 A. M.

The series races will be for perpetual challenge trophies as follows: International World's Championship, for boats of the 12 meter class (Class C); National Trophy, for boats 40 feet and over (Class B); Inter-State Trophy, for boats 33 feet and under (Class A); Motor Yacht Trophy, for cruising boats 60 feet and over (Class D); Cabin Launch Trophy, for boats above 40 feet and not over 60 feet (Class E).

With the Opposing Armies in Massachussetts

By PIONEER

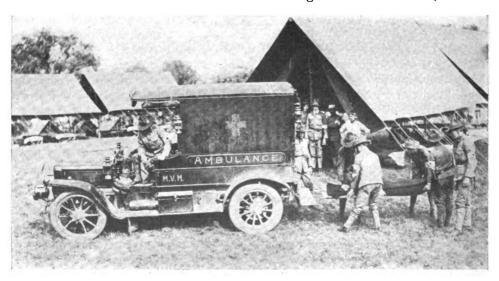
Those who have visited the battlefield of Gettysburg in recent years will remember the summary of the battle as related by the chief guide:

"If General Lee had knew that General Meade had came, he would have went the other way."

Adopting this same literary style, we may say of the military manœuvres head last week in Massachusetts: "If General Pew had knew" just where General Bliss was going to attack, "he would have went the other way." General Pew, it will be remembered, was commander of the Massachusetts militia, which had been called into the field to defent Boston from capture by a "hostile" army. The invading forces consisted of detachments of the National Guard of New York, New Jersey, Connecticut, and the District of Columbia, and were under command of General Bliss, the head of the War College at The defending troops Washington. were designated as the Blue Army, while the invaders were the Rer Army.

On Saturday morning, August 14, the Red Army, some 7,000 strong, effected a landing at New Bedford and on the same day the Blue Army, of about equal strength, were transported from their homes and took up the position of defence in an east and west line extending from Taunton to the sea coast. the terrain over which the contending forces were scattered and in which some fierce, though bloodless, fighting was destined to occur, was not less than thirty miles square. Obviously, the only possible way to keep in touch with what was going on in such a large section of country was to travel by motor car.

Foremost among those who acted in accordance with this opinion was Major General Leonard Wood, commander of the Department of the East, who had general supervision over the manœuvres and acted as chief umpire. General Wood had provided himself with a seven-passenger White steamer, which he used throughout the week, covering, according to his own estimate, an aver-



THE FIELD HOSPITAL OF THE BLUE ARMY

age of 150 miles a day. In the performance of his duties, he used the car each day to visit the camp of each regiment on either side, and during actual hostilities, his car could always be found at the place where the fighting was fiercest. At the conclusion of the manœuvres General Wood expressed himself as more than pleased with the service rendered, and said it was only through the use of the automobile that he had been able to keep fully in touch with what was going on.

No less than five White Steamers formed a part of the military equipment of the Blue Army. Three of these cars were attached to the headquarters of Brigadier General Pew, commander of the Blue Army, and were used by him and his staff almost continuously in carrying orders to his widely scattered forces. There is no doubt that, had it not been for these cars, General Pew would have made a less effective defence of Boston than he did. During the first two or three days, all of the camps were in touch with General Pew's headquarters by means of telephone wires rigged by the Signal Corps, but in the later days of the manœuvres, the Blue Army did not have any time for such operations, and General Pew relied entirely upon his White Steamers to keep in touch with the scattered forces, for, be it remembered, the rules of the game created the fiction that a'! ordinary means of transportation were destroyed and the armies were thrown entirely upon their own resources.

Quite as much appreciated by the Blue Army was the White steam ambulance, attached to the division headquarters, and there was no "make-believe" about the work of this car. Although no bullets were flying about to bring injuries to the contending armies, the hospital corps on each side was kept busy treating cases of heat prostration and

the ordinary ailments to which flesh is heir. In the Blue Army of 7,000 men, such cases manifested themselves very frequently, and it is not surprising that it was found necessary to have two chauffeurs for the automobile ambulance, as it was in practically constant service. As each case of sickness or accident was reported, the ambulance was sent out to bring the patient to the field hospital. The driving of this ambulance was by no means confined to the public roads. On more than one occasion I saw it making its way through the fields to reach the side of some citizen soldier who had collapsed from sheer exhaustion while manœuvring with his company.

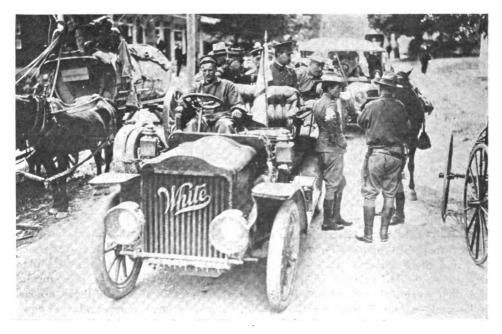
The above does not completely catalogue the extent to which the White Steamers were used by the Blue Army. Quartermaster Sergeant Hathaway drove his White Steamer, using kerosene as fuel, and, as he was in charge of getting supplies to the division head-quarters, it can be readily imagined how useful this car proved itself to be.

Never have I passed a more interesting week in an automobile than when observing the movements of the two armies. By the rules of the game, the fighting and forward movements of the contesting forces were restricted to the hours between 5 o'clock in the morning and I o'clock in the afternoon. chose as our headquarters for the week the quaint old King Philip Tavern, located about twenty miles north of New Bedford, on the shores of Assawompsett Pond. This hotel was also the headquarters of a number of the regular army officers serving as observers, and the atmosphere pervading the place was decidedly military. Each morning we arose at daybreak and took on board five or six army officers, and were at the scene of action by 5 o'clock. We moved unmolested through both the Blue and



TRANSPORTATION METHODS OF MANY KINDS

the Red lines and were therefore able to se all the fine points of the game. Occasionally, we would find the roads so blocked with troops and army wagons that advance was impossible, in which case we would detour and get onto the nearest parallel road and in this way reach the head of the column. In mak-

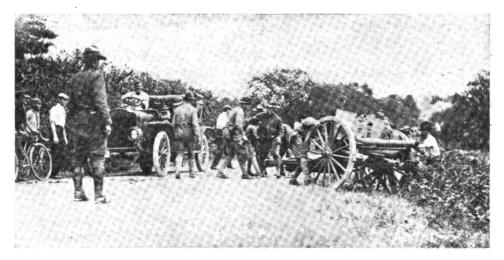


FOREIGN ATTACHES IN A WHITE STEAMER

ing some of these detours, I took my car through some swampy, sandy roads which would do credit to southern Georgia.

Riding now with the advance guards of the Red Army, now in their rear with the skirmishers, and then again visiting the detachments of the Blues, we had a most comprehensive view of the movements of both forces and were in position to appreciate the splendid strategy by which General Bliss penetrated the left flank of the Blue Army and

the opposing forces. If one side has a force of cavalry, the problem of the opposing commander is more complicated, because of the much greater mobility of the mounted troops. Why would not the same reasoning apply to a well-equipped motor corps? With an opposing force capable of covering up to 250 miles a day, a commander would find that the old successful methods of offence and defence could no longer be depended upon. There was no time during the recent manœuvres when a



WATCHING THE ARTILLERY IN ACTION

made such progress that, when hostilities ceased on Thursday, the invading army had a clear road ahead to Boston, although they were much harrassed on their flank and rear by the forces of the Blue.

In military manœuvres, as in actual warfare, time is the principal determining factor. For example, a hundred men, if they reach a place which naturally lends itself to defense, can keep at bay many times their own number. If both armies consist only of infantry, each commander can estimate with the greatest accuracy just how much time will be required for the movements of

force of, say, 300 men, carried in fifty cars, could not have completely over-turned the plans of the opposing forces by capturing the supply trains, cutting communications, defeating detachments sent out on scouting duty, or perhaps engaging in some even more destructive exploit.

For example, Boston was theoretically left bare of all defenders. All the militia of the State was in the field under General Pew. A squadron of motor cars, such as above described, could have made a wide circuit around the entire line of defence and set down a fighting force on the very outskirts of

Boston. A second trip of the cars, and a sufficient force would have been assembled to march into the city and camp on Boston Common.

This question, therefore suggests itself—how long will our military authorities neglect the formation of a motor corps and thus create a branch of the service more formidable than any now in existence? It is my opinion that the utility of the motor car, as revealed in the recent manœuvres, has planted in the minds of General Wood and the other regular army officers who were present, the germ of an idea such as that above.

When the call finally comes for the organization of the United States Motor Corps, the manufacturers will not be found wanting nor will there be, I feel sure, any dearth of volunteers, well trained in the actual handling of motor cars under all conditions.

Massachusetts Commission to Gather Road Data

Worcester, Mass., Aug. 23.—The State Highway Commission has posted men at prominent points on the roads leading into and out of Worcester to take for one week an account of the automobile traffic. In various parts of the country road census on a small scale have been taken, but as far as is known, nothing on so comprehensive a scale as that proposed by the Massachusetts Highway Commission has ever been undertaken in this country.

The reason for taking the census is to answer the question of the relative use of the State highways in different sections, and of the popularity of various through routes and their bearing on maintenance costs, which are arising constantly before the Highway Commission, and it never has had any accurate data upon which to base estimates. It therefore has undertaken this census, first "to determine the relative importance of the different lines, or routes of travel throughout the State," and second, "to secure at least a rough approximation of the relative use of such routes by motor vehicles.

While the commission would like to obtain statistics as to weight as well a volume of traffic and tire widths, it considers that too expensive an underaking, and there will confine itself to volume. For the purpose of the census, traffic has been divided into six divi-

sions, and the daily observation periods will be divided into two-hour sections. The observers will be provided with cards properly numbered and dated for each day and each section.

The cards which the observers will turn in at the end of the week will show the town or city in which the station was located, the station number, its locaion and the date. Below, on a sort of a score arrangement, the vehicles observed will be recorded in separate spaces, and will be in the following subdivisions: Touring cars, light weight and heavy; runabouts, business motor cars and trucks, and racing machines. If a car passes twice it is counted twice. This arrangement will provide a total showing the number of vehicles in each counted each day, and also the total number of vehicles passing in any of the two-hour periods.

The cost of the census will be from \$5,000 to \$6,000, and the stations in the Worcester section are as follows:

No. 306, Shrewsbury; 314, Grafton; 335 Worcester-Millbury line; 336, Worcested-Auburn line; 310, Cherry Valley; 341, Paxton; 312, Holden; 307, Wheelersville; 33, West Boylston; 334, Auburn-Oxford line; 335, Oxford-Charlton line; 332, Charlton City; 331, Charlton depot; 315, Leicester-Spencer line; 217, East Brookfield, and 318, West Brookfield.

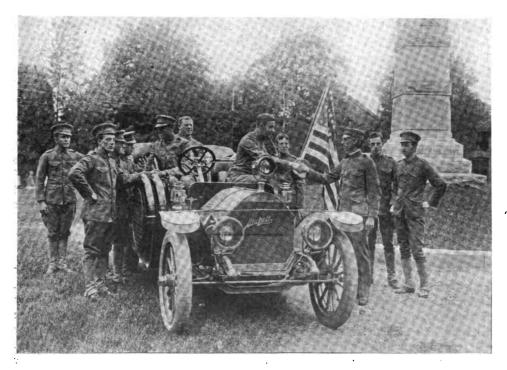
Mitchell Ranger is Off for San Francisco

To determine the capabilities of an automobile as a dispatch bearer in time of war, a transcontinental trip of a Mitchell car has been arranged by the War Department, and the vehicle, which has been dubbed the Mitchell Ranger, left New York Thursday noon, August 19, en route for San Francisco.

The Ranger, which is a four-cylinder, seven-passenger 1910 model Mitchell, is piloted by Private Malcome E. Parrott, Tenth Regiment, N. G. S. N. Y., who is accompanied by Lieut. B. B. Rosenthal and a mechanic, Frank X. Zirbes. Lieut. Rosenthal, who is the courier of the party, is bearing dispatches from Major-Gen. Leonard A. Wood, commander of the Department of the East, to Major-Gen. John F. Weston, commander of the Department of California.

Several hundred persons gathered at Columbus Circle on August 19 to witness the start of the 3,693 miles journey. Both the car and the voyagers appeared to be fitted for a strenuous journey. The three travelers were garbed in regulation khaki uniforms, while the car was equipped with tools which may become handy when the Ranger reaches the western part of its journey A coil of rope was fastened to the footboard on one side of the car, and there were shovels strapped to the footboard on the other side. Picks, axes and other tools were also carried.

Lieut. Rosenthal, the dispatch bearer, occupied the tonneau along with five suit cases and several hand bags, while hanging from the tonneau doors were several haversacks. A military aspect was added to the car by an American



PRIVATE PARROTT BIDDING HIS COMRADES GOOD-BYE

flag which floated from the side. The flag was presented to Private Parrott by the members of his regiment several minutes before the start of the trip, which will end at Gen. Weston's headquarters at the Presidio, San Francisco.

Shortly after 12 o'clock the car was started on its long journey across the country. A number of automobiles containing enthusiastic motorists escorted the Ranger as far as the city limits, where the three voyagers, after answering a parting cheer, headed their car for Poughkeepsie, the first night's stopping place.

The trip across the country of the Mitchell Ranger is attracting considerable attention from military authorities in this country, as an appropriation for the establishment of an automobile squad in connection with the Signal

Corps of the Regular Army is to be asked of the next Congress. An attempt was made several months ago in New York at the formation of a volunteer automobile corps. This movement was approved of by Major-Gen. Wood, but at the initial meeting for the purpose of organizing the corps only a few persons appeared.

The three men making the trip declared before the start that they expected to complete the 3,693 miles, which will take them through eleven States, before the middle of September. Frank X. Zirbes, who, as mechanician, accompanies Private Parrott, is a veteran driver, having piloted a car from New York to Chicago several times. At Milwaukee a year ago he made a record with a Mitchell car in a twenty-four hour endurance run.

Use the Direct Route to Utica

If you have occasion to travel from Syracuse, N. Y., to Utica, or beyond, don't take the Richfield Springs road. This is the advice which George M. Bradley, the Diamond tire man, is giving his friends as fast as he can have a few words with them. He speaks by the book, for he traveled over the Richfield Springs road last week, and he is in a position to tell all about it. That it is vile is a mild way of putting it, whereas the direct way to Utica is a fine State highway, and much shorter, besides.

The Richfield Springs detour is one

that is advised by the Syracuse Automobile Club, the Yates House at Syracuse and the Earlington at Richfield Springs.

There is a pamphlet telling about the advantages of this route, and many travelers "fall for it," when they see what backing it has. The Bradley party was advised to go direct, but was guided by the pamphlet in question. It took them nearly twelve hours to go ninety miles, and then they were so mad that they wouldn't stop at Richfield Springs, but pressed on to the next town.

Governor Becomes a Good Roads Builder

Former Governor Warfield, of Maryland, has become an active worker in the good roads movement. The commissioners of Howard County have awarded him a contract to build three miles of highway from the Frederick pike to Daisy, on the road leading to Oakdale, the country estate of Mr.

Warfield. The road is to be built under the provisions of the Shoemaker law, which provides that the State shall pay half the cost, the remaining half to be paid jointly by the county and property owners along the line of new roadway, the county to pay 40 per cent. and the property owners 10 per cent.

Chalmers Talks on Advertising and Salesmanship

Before the Associated Advertising Clubs of America this week, Hugh Chalmers, president of the Chalmers-Detroit Motor Company, spoke on "The Relation of Salesmanship to Advertising." No man in America is better qualified to speak on such a subject. Before embarking in the automobile business. Mr. Chalmers was in charge of the sales department of the National Cash Register Company, and had made a special study of the ethics, the vagaries and the the essentials of salesmanship and advertising. His speech, extracts from which are given below, constitutes a vade mecum of the twin arts, which Mr. Chalmers links and pronounces inseparable:

The relationship of salesmanship to advertising is the closest relationship known—closer than friends; than a team under a single yoke; closer than brothers; closer than man and wife, as there can never be separation and divorce; all salesmanship is part advertising, and all advertising is part salesmanship; they are the twin screw engines that drive the ship of business; they are like a chemical compound—each contains the other and is itself the thing contained.

Nitrogen and glycerine each is a power alone, but when combined in the proper parts they make the most powerful explosive known. It takes knowledge to mix them and a spark to set off the mixture, but the results are tremendous.

So with salesmanship and advertising. Each is a power alone, but combine them and you have the greatest business producing force known. It takes brains to create and combine them, and it takes nerve to touch them off, but the results are worth while.

Every ad is a salesman; every salesman is an ad. Advertising is salesmanship plus publicity. Salesmanship is advertising plus getting the order signed.

Advertising and salesmanship are alike in that in both you are trying to influence the human mind—trying to teach people to believe in you and your goods. Advertising is teaching; so is salesmanship.

The close relationship of salesmanship

to advertising is most apparent perhaps when we get clear down to bedrock, and discover the real foundation of salesmanship-of doing business successfully. The whole business world rests on a foundation of confidence as much as any other transactions in business. If a man has confidence in you and your goods you can sell to him. You cannot make many sales where confidence is lacking. If your prospect lacks confidence in you then your entire efforts must go to building up in his mind a feeling of confidence. Now the greatest builder of confidence is publicity—advertising. Lack of confidence is usually due to ignorance. Unless you know a man well you haven't confidence in him. Unless you knowe a business house well you haven't confidence in that house. The greatest foe of ignorance is publicity. The saying that "publicity corrects all abuses" is a true Advertising makes you acquainted with the public. It gives people knowledge about you and your goods, and knowledge is absolutely essential to confidence. Big advertising looks like big sales; it makes people familiar with you; it unconsciously creates confidence. Without a doubt the greatest force to-day in the interest of confidence-in the interest of credit if you will -is advertising.

Advertising and salesmanship are identical in their object.

What is their object? The distribution of goods at a profit.

How can this be done? It is done by teaching. That is what advertising is—teaching. Teaching great numbers of people to believe in your goods. And that is what salesmanship is, too. But advertising conducts a public school, while salesmanship gives individual lessons.

One of the oldest chestnuts in the talk of advertising men is: "We must carry on a campaign of education." Nearly every advertising magazine you pick up you read about someone carrying on a "campaign of education." When an advertising agent is up against it for something to say to his client, he assures him with great solemnity that he must "carry on a campaign of education." Let us get through with this old chestnut. All advertising campaigns are campaigns of education. If they are not education, they are not advertising at all.

The object of advertising is to teach peo-

ple to believe in you and in your goods; to teach them to think that they have a need for your goods and to teach them to buy your goods.

And the object of a salesman when he goes into his territory is exactly the same. Judging from some of the advertising I see, and from what I know of a great many salesmen, I am convinced that neither the advertising man nor the salesman has plainly before him the object he is trying to accomplish. Of course a man who does accomplish an object without knowing himself the object which he is trying to accomplish is only a fortunate victim of an accident. We all know that this kind of an accident very seldom takes place.

I once learned a valuable lesson from a School of Expression in Boston. I once went there because they said that they could teach anyone to talk in public. I do not know that I learned much about speaking in public, but I learned this one thing, which has been worth a whole lot to me ever since. The first thing that this teacher told me was that I had to have an object in mind when I was addressing an audience. He said, "Now, what is your object?" What do you want to tell these people? Why are you going to talk to them? Get the object first fixed in your mind and then talk about it, but if you get up to talk and haven't any particular object in mind, you won't make much of an impression. Now this "object" business is not only good for public speaking, but in everything we do every day. If you are going to write an advertisement, what is the object of it. If you are going to hold a meeting of six or seven of your people, what is the object? It you are going to print a paper for salesmen, what is the object of it? You can see from these applications what a great point that is.

I have been in the manufacturing business nearly all my life, and I have found that it is much easier to make things than it is to sell them. It took me some time to figure this out. It finally dawned on me that the difference is caused through the fact that in one case you deal mostly with machinery and metals, while in the other you deal entirely with the human mind.

Machinery is a fixed quantity. You know exactly what a machine can do, and exactly what it will do under given conditions. It is very often automatic and requires little attention from anyone. It is nearly always the same. It never changes

its mind. It is very seldom influenced by outside conditions. Nearly everyone who has some money can start a factory and manufacture things, but it doesn't follow that anyone can sell things after manufacturing.

When you get on the other side of it and try to deal with humanity, you face very different problems. Humanity thinks. It has feelings. It has sensations, decisions, prejudices. It changes its mind. It is influenced by environment and the condition surrounding it.

Here is a peculiar thing about humanity. It has always wanted and it wants now, teachers, leaders. People are willing to be taught. The man who makes a great success. I don't care whether he is a business man, a lawyer, a politician, or an advertiser, is the one who goes into the teaching business.

Advertising and salesmanship form the connecting link between invention and the use of any article. All the best inventions of the world would have fallen flat had it not been for advertising and salesmanship—had it not been for teaching people the use of new things. Therefore, I think I will not be stating the case too strongly to say that advertising and salesmanship have done more to push the world ahead than anything else. Through advertising and salesmanship, men have been brought to see and to appreciate the blessings which the world affords.

What is salesmanship? Salesmanship is nothing more nor less than making the other fellow feel as you do about what you have to sell. A sale does not take place in a man's pocket, or in his pocket book, or his check book, but it first takes place in his mind. In order to make a sale you must convince a man's mind. When you go in to see him he feels that he does not want to buy your goods. You feel that he should have them, and would buy them if he knew as much about the goods as you do. Now, in order to sell him you must change his mind and bring it around to agree with your mind. So that when we once put salesmanship on this one broad plane of convincing the other man's mind, it doesn't make any difference whether we are trying to sell a house and lot or a paper of pins.

Advertising is a process of salesmanship. It is a means toward making the other fellow feel as you do. Most frequently we hear that "advertising is salesmanship on

paper." This is not untrue, and yet it is not wholly true. Advertising is more than salesmanship. It is an insurance on the continuance of trade. It is salesmanship, plus publicity.

To show you the value of teaching salesmen what to say to prospective purchasers -suppose you were a manufacturer and could call all of your prospective purchasers together in one large tent, and you would have them there for the purpose of telling them about your goods. What would you do? First of all, you would be mighty careful about the man or men you picked out to talk to these people. You would pick out the man who could make the best talk, the man who in the time he had to speak could teach these people the most about your goods. You would want to know beforehand just what he was going to say before you would let him go on the platform. Now, what is the difference between talking to them all at one time or talking to them one at a time. Then why not train your salesmen how to talk to each individual, since you would consider it so important to know what would be said to all of them at one time?

I think most copy writers and advertisers take it for granted that the buying public knows a great deal about their goods; at least some of the copy would make you think so. They use all kinds of technical expressions and big words. I once heard it said that a man with big ideas uses little words to express himself. while the man with little ideas is always using big words to try and impress the people with the greatness of the little idea. Small words are more important in avdertising than in anything else. No one ever buys until they are convinced. You can't convince them until they understand. They won't understand unless you express yourself clearly, and the only way to express yourself clearly is to use small words that any one can understand. Most advertisers shoot over the heads of nine-tenths of the people they want to reach. They don't understand the art of merely talking common-sense to these people-the same kind of talk they would use if they were trying to sell them orally.

Next to the importance of what you say, is the way in which you say it. It is so in talking—it is so in advertising. The setup of an advertisement is like the dress of a salesman. Suppose a salesman would go into a store to sell goods and would have

on a hat of one color, a coat of another color, a vest of another, and green trousers. He might attract attention, but he would not make much of an impression. set-ups of some advertisements remind me very much of such wearing apparel for a salesman. Of course, this is exaggerated, but, nevertheless, you see the point. my opinion an advertisement must be just as simple in form as the dress of a salesman. Some people write an advertisement, and then put a lot of red lines or heavy black lines around it, or all kinds of curlycues, so that the most important thing about the "ad" is the big red lines, or the fancy type or the fancy border, when, as a matter of fact, that is the very thing they want to subdue. Everything must be so arranged and the type so set that attention is called to the most important thing, and that is the statements you are making in the copy about the goods you want to sell. Everything must be subordinated to that.

Another thing in connection with copy; I think that all self-evident things should be omitted, such as "Are you in business to make money?"—"Are you satisfied with what you made last year?"—and a number of similar clauses, all of which are foolish, and it is foolish to waste time talking about things that are self-evident. Of course the man is in business to make money, and, of course, he is not satisfied with what he made last year if he can make more this year. Don't waste time on non-essential things.

I once went in to see an old business man, and wanted to borrow \$500. I went in and said: "I want to borrow \$500, and will give you my note for 60 days and I will pay you at the end of 60 days." He turned to the cashier and said: "Write Mr. Chalmers a check for \$500." He then said to me: "Young man, let me tell you something-you could not have gotten that money had it not been for the straightforward way you asked for it. Most men come in here and waste a lot of my time by saying: 'Good morning, how are you this morning? Nice weather we have been having the last few days. How is the family? And, by the way, I am a little short of money and would like to borrow \$500 for a couple of months.' But," he said, "I was impressed by the way you asked for You came in and asked me for the money right off, so I am going to let you have it." So, gentlemen, in this time and generation let's eliminate all the "by-theways" and get down to straight business. It pays.

Now there is a lesson in that for advertisers, too. This is a busy world, and getting busier all the time. Even those who have lots of time to read like to read direct statements. So get down to talking your business in the opening paragraphs of your copy.

I have had a great deal to do with salesmen. I was a salesman myself for a great many years, and I have employed and supervised the work of hundreds of others. There is an old adage which says, "Salesmen are born and not made." I don't believe that. I believe salesmen are made as well as born, and teaching wil do a great deal to make a salesman. However, there are ten qualities which a man must possess to be a successful salesman, and as far as my experience goes I should say that these principal qualities are: Health, Honesty, Ability, Initiative, Knowledge of the Business, Tact, Sincerity, Industry, Open-mindedness and Enthusiasm. I think these same qualities may be applied to advertising men, or, as a matter of fact, to any man, because when you get right down to the facts, we are all salesmen. Every man is trying to sell his personality to some other man. He is trying to impress the people he meets. He wants people to think well of him; consequently, he is a salesman, because he is trying to sell what he considers his good qualities to other people. A man may not have all ten of these qualities, but in proportion as he has them will he succeed.

Now, when I say that he should have health, I do not mean that you want to go to the extreme of interfering with a man's private life and tell him what he should eat and drink, or anything of that kind, but I believe that in the selection of men the question of health should enter largely, because in my own experience a healthy mind is better nourished in a healthy body than otherwise. The man who has health of body is surer to have a healthy mind than the one who hasn't bodily health. On the question of the health of a salesman enter those things he shouldn't do. There is hardly a salesman in the country to-day but isn't doing one or two things that are injuring him. The greatest thing that bothers us all is our habits. I refer particularly to the subject of eating, drinking and smoking too much.

A salesman's mind should be on the qui

vive all the time. Just like a race horse, he should be ready to go when the bell sounds. Now every man knows that he is better off if he doesn't drink at all. I don't think that drinking ever benefited any man, and the same thing applies to smoking, but there are some of us who can do these things temperately and who are not much harmed by it. But if a man wants to take a drink or two, he should not do it in the day-time. A business man particularly should not take a drink until after six o'clock in the evening. We see very much less drinking in the day-time now than ten years ago, and I am very glad to see it, because as business men we have no right to do that thing in the middle of the busiest day which will in any way interfere with our efficiency for our afternoon's work. I know of nothing that will so unfit a man for business as a drink or two in the middle of the day, because at two or three o'clock in the afternoon he is lazy and heavy and unfit for work, and a salesman, above all others, if they feel they must drink, should not take a drink until after six o'clock at night. The man who will stick to this rule will have more dollars in the bank at the end of the year than the man who does not. I speak from experience, like the man who says: "It pays to be honest, because I have tried both ways."

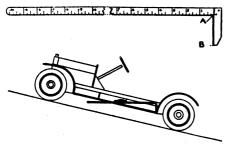
In speaking of honesty, I don't refer to it in its basest sense, because a man is nothing short of a fool nowadays who is not absolutely honest. But honesty goes further than just what a man does. Honesty means what a man thinks as well as what he does. After, all, gentlemen, there is only one man in the world who knows whether a man is honest or not, and that is himself. Our wives think that we are honest, and whether we are or not it is a good thing to keep them thinking that way, but they could not prove it to save their souls, but I give it to you as good sense and business logic that honesty in all things must be the rule of all men if they are going to succeed. I tell you it is a good thing some men are dishonest, because if they were honest, coupled with their natural ability, you and I wouldn't have much of a chance.

It has been my experience that there are but three kinds of men in the world—the kind you have to tell once to do a thing, and you can bet your life it will be done;

(Continued on page 1438)

PREVENTIVES AND REMEDIES

Many motorists may have wished at some time or other to find out the gradient of some hill in their neighborhood. This can be readily done with the assistance of a spirit level and a piece of straight timber (a 5-foot lath will do). First run the car on to a perfectly level floor, and with all four tires pumped up to normal; the footboard should be parallel with the ground, that is, horizontal. Obtain a piece of lath about 5½ feet long, 2 inches deep and ½ inch thick, and have the edges made true by a carpenter. To one end of this lath firmly



METHOD OF MEASURING A GRADIENT

secure a small piece of wood, fixed accurately at right angles to the long piece. This short length should come down between 21/2 or 3 inches below the edge of the long piece. Along the bottom edge of the long arm mark off a number of points the exact distance apart that the short arm projects below the long arm. If your short arm projects 3 inches, a 5-foot long arm will give twenty readings. These can be again sub-divided into as many parts as the accuracy desired may require. With this simple affair and an ordinary spirit level, take the car on to the center of the slope you wish to measure. Stop on the slope, stand the short arm on the edge of the footboard near rear wing, place spirit level on top of long arm, and when the long arm is moved to be exactly horizontal, read off the figure of the division cutting the rear edge of the footboard. That gives you the slope, expressed as a fraction, viz., 1-20. 1-14, 1-71/2, etc., etc. This operation can be repeated on every change of slope, and if the surface distance between each change of slope be taped, the section of the hill can be easily plotted. If it be desired to express the slopes thus found in degrees, sufficient accuracy is obtained up to 20 degrees by dividing the

denominator of the fraction into 60. Thus, a slope of 1-4=15 degrees, 1-6=10 degrees, 1-8=7½ degrees, all approximate.

If properly cared for, there is no reason, barring accidents, why the body of a motor car should not look as well at the end of six months' service as it did when first delivered from the factory. When a car has lost the first gloss of its outer covering it has not only suffered in appearance, but has depreciated somewhat in value as well. Of course, in time, any vehicle will need new painting, but this should be a matter of years instead of months, as is too often the case. The use of needlessly strong alkali soap in cleaning cars, neglect to wash off the soap and failure to dry the varnished surface perfectly are probably responsible for more damage to paint than all other causes combined. As a matter of fact, neither soap nor water should ever be used on a car above the under sides of the mudguards, except in cases where the mud is caked on the body in large quantities. In most cars the first signs of wear of the painted portion invariably show on the varnished surface of the engine bonnet. This is due to the fact that it is frequently covered with mud on the return from a run and is then washed with soapy water while the metal is still hot. Soap should not be used on the bonnet until it has cooled, and even then should be carefully washed off. After a number of washings while the bonnet is still hot the injurious effect is quite noticeable, and within a short period the car has to be repainted, long before its legitimate time.

Too great care cannot be exercised in keeping the mud shield below the engine and gear-box clear and free from volatile oils. Despite supposedly adequate provision for drainage, the average under shield usually contains a small-sized poof mingled grease, water and oil, which is as tinder to a possible spoonful or two of gasolene, such as may trickle down from the carburetter at almost any time.

If the motorist is willing to take a little pains he can reduce very greatly the rate of wear of his trembler points by periodically reversing the direction of current flow through the system.

C L U B S

The Automobile Club of Hudson County, N. J., has requested Mayor Wittpen, of Jersey City, to see that the police of that city enforce the light law. Jersey City motorists have been complaining for a long time that drivers of vehicles have ignored this law, and several accidents have occurred and more serious ones have been narrowly averted. In each case the burden of proof appears to rest upon the motorist, who is almost invariably blamed for mishaps, whereas in a majority of instances the drivers of wagons pay little attention to light laws or road rules. Drivers of buggies and other light vehicles which might suffer more than an automobile in an accident are about the only ones to heed the enactment that is designed to be of benefit to all. Drivers of heavy vehicles have been doing as they pleased, but if the police and Mayor Wittpenn heed the plaint of the autoists, conditions will be different.

The Automobile Club of Philadelphia is appealing to its members to keep within the letter of the law in driving automobiles at all times. This action is taken largely as a result of a letter received by S. Boyer Davis, chairman of the Law Committee, from F. F. Campbell, the bur-gess of Jenkintown, Pa. The letter, which evidences the fairness of Jenkintown officials, in part is as follows: "I shall be obliged if you will kindly instruct the members of your body, when they are within the limits of the borough of Jenkintown, to reduce their speed so as not to exceed eighteen miles an hour at any time, and to go slow and carefully around the corners and to blow the horn at all crossings where signs are erected, and at all points where the circumstances require it. I shall be glad if they will be particularly careful in going south on York road, slowing down at street crossings at West Avenue, Greenwood Avenue and Summit Avenue, for the reason that it is impossible to know if the road is clear, and, further, because of the trolley tracks being in the center of the road it narrows the running space to really less than twenty feet, thus not giving much room to get out of the way, particularly should there be a trolley car blocking the way. You can imagine that the necessity of fining people is decidedly unpleasant to me, personally. as well as annoying. But I wish to say just as strongly as I can that until the motorists in general respect the laws of the commonwealth for the safety of its citizens, I shall certainly do all in my power to make it unpleasant. As I told you personally, there has been no one served with a notice who has not exceeded twenty-four miles an hour, except a comparative few who have failed to blow the horn at crossings, and I find in a majority of these cases a warning given personally suffices better to prevent a repetition than a fine. But we wish to sound a warning that the speeding must stop. And I believe that I am entitled to the support of any organization which has the interest of the sport at heart. I might add in this connection that those whose misfortune it is to appear before me will fare far better by telling the truth than by trying to put up a bluff."

The Omaha (Neb.) Automobile Club has elected officers as follows: President, W. R. McKeen, Jr.; first vice-president, Frank Colpetzer; second vice-president, Dr. J. P. Lord; secretary, E. L. McShane; treasurer, Gould Dietz. These directors were reelected: Captain Thomas F. Buchan, A. P. Guiou, Thomas Fry and Louis Nash.

The Automobile Club of New Rochelle, N. Y., has been organized. There are over 250 owners of cars in this suburb, and the new organization was formed through the efforts of E. T. Birdsall, a well-known automobile engineer. The new club started out with about fifty members, and in the near future will have its own clubhouse and garage. The officers elected were: President, E. T. Birdsall; first vicepresident, W. B. Ogden, Jr.; second vicepresident, J. A. Scofield; secretary, F. M. Carpenter; treasurer, F. D. Le Count. The governors are A. F. Bradley, T. N. Benedict, G. W. Sutton, E. Eckart, Robert Fox and G. A. Peck. That the new organization is up to date is evidenced by its constitution, which states that among its other activities the club will enter the field of aeronautics. It is stated that several of the members are already interested in this sport. All the officers of this new organization are prominent men in New Rochelle, and at the next meeting, which will be held in September, an active program for the fall season will be arranged.

AUTOMOBILE SPORTS

The New York Automobile Trade Association has selected September 20, 21 and 22 as the dates for its second annual efficiency tour around Long Island. first day's run will terminate at Orient Point. The cars are to be parked at Greenport and the tourists will spend the night at Shelter Island, where one of the hotels will be kept open ten days after its regular season in order to accommodate the party. The tourists will have early breakfasts on the morning of the second day and will drive to Riverhead in time to reach that point before the start of the Long Island stock car race. Seats are to be reserved for the tourists in the grand stand, as well as parking space for their cars. After the race is finished, which is expected to be about I o'clock, the tourists will have lunch at the grand stand and drive to Amagansett. The return trip will be made via Southampton or Good Ground.

About fifty automobilists participated in a recent club run of the Iowa Automobile Club to Clear Lake and return to Des Moines. The participants left Des Moines eraly in the morning of Saturday, and lunched at Iowa Falls. The Mason City Automobile Club joined them at Hampton and escorted the party to Mason City, and then to Clear Lake, where Sunday was spent.

The Omaha (Neb.) Automobile Club is planning to conduct a two days' endurance contest some time in the near future. Several valuable prizes have been offered. A pathfinder has laid out a tentative route, which will call for a two days' run. Either Grand Island or Hastings will be made the night control, with Columbus as the noon control on the outward trip. Rules governing the contest have been prepared. They provide for four classes of two divisions each, which includes runabouts, tourabouts, close-coupled bodies, baby tonneaus and regular touring cars.

McDonald & Campbell, automobile outfitters of Philadelphia, have offered a sterling silver trophy, valued at \$1,000, as a reward to the winner of the Fairmount Park race of the Quaker City Motor Club, which will be conducted on October 7. While the design of the trophy has not yet been decided upon it will be a cup almost two feet in height and mounted on a polished pedestal. It will be handsomely engraved, with a representation of an automobile racing at full speed. It is not a permanent cup, nor is it incumbent upon any driver to win it several times before it becomes his property.

Chicago motorists are enthusiastic over the possibilities of the annual inter-club reliability road contest of the Cherry Circle and Chicago Automobile Clubs, which will probably be held some time next month. As yet no details of the inter-club match have been announced, but this year's event, which is the second of its kind, will be for teams composed exclusively of tradesmen named for both organizations as well as amateur drivers piloting their own cars. There will be two trophies, and probably both contests will be held not only simultaneously, but under the same conditions.

A route, starting in Munich and leading by way of the Tyrol to Italy, and back through Hungary to Berlin, is being proposed for next year's Prince Henry of Prussia's touring car competition.

Saturday, September 11, has been designated as Motor Car Day at the Minnesota State Fair. The automobile clubs of Minneapolis and St. Paul will be in charge of the day's program, which will consist of a number of racing events.

The New Jersey Automobile and Motor Club held a roadability contest to Bellewood Park, N. J., on Sunday, August 22. The run was one of the most successful events ever held under the auspices of the club. The cup was won by A. J. Westervelt, of Elizabeth, who finished his run at 11.521/2 o'clock, while the hour which had been selected by the referee, and which had been carefully concealed in a sealed envelope, called for a finish at 11.53.35. The Elizabethan was, therefore, less than a minute out of the way, and wins the handsome silver cup which had been donated as a prize for the contest. A number of the motorists completed the run within five minutes of the scheduled time.

HIGHWAYS

Acting in response to an official notification from the State Highway Department, Thomas M. Brennan, Superintendent of Highways of Niagara County, N. Y., is getting after the town road authorities in the matter of the removal of noxious weeds from the roadsides. Complaint has been received at the State Department that the farmers in Niagara County are lax in obeying the law in this respect; that they have allowed weeds to line either side of the highways, both improved and unimproved, to the general detriment of the system and the appearance of the country drives. Supt. Brennan has been requested to notify the town superintendents to allow the farmers until the first of the month to remove the weeds and noxious growths. and in the event of their failure to do so by that time, to do the work themselves and assess it to the property owners. Supt. Brennan has already called the attention of the town officials to the situation by letter, and he will make a personal tour throughout the county to see that the orders of the State Department are being complied with.

A plan is on foot in Georgia to connect Fannin, Towns, Union and Rabun Counties, the most inaccessible counties in the State, with a new highway, tapping the Louisville and Nashville Railroad at Blue Ridge and the Southern Railroad at Clayton. A number of meetings have been held for the purpose of furthering the project. The counties of Towns and Union now are isolated, to a very large extent. As a result development has been stunted. In some instances the mails are three days late reaching points in this territory. The agricultural, timber and mineral interests of this country are immense, once they can gain access to the railroad. The plan now is to induce the counties to bond themselves for this inter-connecting highway, maintaining between them a convict force which shall work intermittently on a through road from county to county until the contemplated link is completed.

A good roads convention was held at Covington, Ga., last week, the principal speaking being done by Hon. Fred. L. White, president of the Good Roads Club of Georgia. He drew some logical conclu-

sions as to the advisability of a bond issue for the construction of permanent roads. After the speaking was finished, a good roads club was organized. Officers were elected as follows: L. W. Jarman, president; E. L. Almand, vice-president; J. H. Echols, secretary, and J. Z. Johnson, chairman of the board of commissioners, as treasurer.

For the purpose of raising funds to be used for road improvement work, the Richmond (Va.) Automobile Club has decided to hold a race meet at the State Fair Grounds, Richmond, on September 8. The profits will be turned over to the Virginia Good Roads Association, to be used for the maintenance and improvement of State highways. A program of eight events has been prepared, the distance of the races ranging from one to twenty-five miles.

The Spokane County (Wash.) Good Roads Association has been organized, with R. Insinger, manager of the Northwestern and Pacific Hypothuk Bank, of Spokane, as president. One of the principal works to be undertaken by the organization is the building of an up-to-date highway between Spokane and Coeur d'Alene, a distance of 34 miles. In this project the association will seek the co-operation of Coeur d'Alene, Post Falls and other valley towns, and of farmers and other property owners in Spokane and vicinity.

The Fulton County (Ga.) Highway Commissioners are planning to widen the College Park Road of Atlanta into a beautiful boulevard sixty feet wide. A convict camp has been established at Fort Mc-Pherson, and it is expected that work will be commenced in a short time.

Discovering that a long stretch of macadamized road between Wilkesbarre, Pa., and Pittston, constructed for the county by B. G. Coon, of Wilkesbarre, at a cost of \$61,467.60, has not been according to the specifications. the Luzerne County Commissioners have refused to pay the last \$8.000 due on the contract. Special engineers employed by the county report that the macadam is only eight inches instead of ten inches thick; that the gutters are improperly constructed, a poor quality of material being used. and that the road has no crown to speak of and is already beginning to rut. A more extended investigation is to be made.

AERONAUTICS

The Aero Club of America has received word from its president, Cortlandt Field Bishop, who is now in Europe, that he has consented to act as aid to E. W. Mix, who has been named as America's pilot in this year's international balloon race for the Bennett cup. The contest will be held at Zurich. Switzerland, on October 3. This will be the fourth competition for the prize, the trophy now being held by the Swiss Aero Club. Mr. Mix was Alfred Leblanc's aid in 1907 in the French balloon, Isle de France, in the St. Louis race, and got second place. Mr. Bishop writes that they will use in the race the balloon America II., built by Mallet, of Paris, last year.

Charles F. Willard, who has been experimenting with the Aeronautic Society's aeroplane at Mineola, L. I., for the last week or so, is going to take the machine to Toronto, Canada, where he will give a few demonstrations.

The dirigible balloon Clement-Bayard, built by the Clement-Bayard Company, of Paris, for the Russian Government, was wrecked on Monday, August 23, during its preliminary trial. The crew of the air-ship, including Colonel Nach, of the Rus-The craft sian Army, were not injured. made a successful ascent near Maisons-Laffitte, remained in the air an hour, and then came down without damage. On the ground a violent gust of wind tore the balloon from the grasp of forty men who were holding it. It was thrown against trees and telegraph poles nearby, ripping the gas bag to pieces. The ship then fell into the Seine. The four occupants had stuck to the car during these happenings. Upon landing in the river they left the shattered ship and swam for shore. They were picked up by small boats. By the terms of the contract with the Russian Government this balloon was to have maintained an altitude of 3,600 to 4,500 feet for one hour. It is believed the bal-loon can be repaired. This airship was built in Paris last fall. It was about 180 feet long and had a capacity of 3,500 cubic The car was built of steel tubes. The airship was fitted with a steel-covered engine house and a shelter for the pilot and passengers. The motor was attached to the frame by strings so as to prevent the vibration from being transmitted to the framework. The balloon was driven by a wooden propeller about 15 feet in diameter, with a speed of 350 revolutions a minute. The ship made a successful trial trip several months ago from Sartrouville to Saint Germain and Maisons-Laffitte.

In view of the fact that the honor of first crossing from Calais to Dover on a flying machine has fallen to a Frenchman, it is interesting to recall that it was also a Frenchman who first crossed the Channel by balloon, the feat having been accomplished by Blanchard on January 7, 1785.

J. A. D. McCurdy and I. W. Baldwin, the two Canadian members of Dr. Graham Bell's Aeronautic Experiment Association, which was disbanded last Spring, recently completed their first machine modeled on the plan of the successful Silver Dart, and it has been tested with good results at the military camp at Ontario. It is called Baddeck No. 1. Mr. Baldwin has not abandoned his desire to go to England and try for some aviation prizes, and later in the year the new aeroplane may be shipped abroad.

The manufacture of special light waterproof material for use in the construction of aeroplanes and dirigible balloons is becoming an important industry in France. Among the firms which have taken up the production of this class of textile is the Société des Anciens Etablissements J. B. Torrilhon, of Chamalieres (Puy-de-Dome).

A higher school of aeronautics has been established in France. The new school, which is due to the conception and efforts of Commandant Roche, will be concerned with the practical side of aeronautics and aviation, and the pupils who succeed in passing its examinations will receive the title of aeronautical engineer. The course will last a year, and the lectures will be devoted to all the principal branches of aeronautics and aviation, including motors, while additional lectures will be given on various subjects concerned with the progress and evolution of aerial navigation. The lectures will begin in October.

Fire Horses' Death Knell Sounded

GRAND RAPIDS, Mich., August 21.-The knell of horse-drawn fire apparatus was sounded in the annual convention of the International Fire Chiefs' Association, held here. The active heads of departments in all parts of the United States and Canada were gathered, representing fully 600 cities, large and The only big cities not represmall. sented by their fire chiefs were New York and Chicago. That the convention members went upon record as favoring automobile fire apparatus can thus be taken as the voice of the fire fighters of the new world, and in individual talks they went further by stating that it would be but a few years before the horse-drawn equipment would be a relic of the dark ages.

Among the distant chiefs in attendance was Clarence F. Samuelson, of the Manila fire department in the Philippines. He said he had come specifically to look into the automobile apparatus now on the market, and that his department intended to equip with such about as soon as it could determine who was putting out the best of these. He called

attention to a cost of \$400 to \$500 for each horse landed at Manila, and said that aside from the automobile fire apparatus being modern with his department it was an economy, he believing the saving in horse flesh and feed would cover the cost of fire automobiles in the course of five years. Mr. Samuelson was an interested witness of the demonstrations made during the convention of automobile apparatus, and will visit the home plants of the companies making such before returning to Manila. He expects to place his orders before going home.

Fire chiefs from many cities of the country stated they were advocating the general adoption of the automobile in their department, and one brought forth the argument that a machine going 50 miles an hour could be stopped much more quickly than galloping horses making 15 miles an hour.

The convention was a big thing from the standpoint of the business, but it was a much bigger thing in prospects for the makers of automobile fire apparatus.

New Method of Sick Horse Transportation

A novel method of transportation for disabled horses was employed when the Morgan five-ton truck conveyed the race horse, Hal Ensign, from the trotting park at Woonsocket, R. I., to Maynard, Mass.

The sight of a horse traveling aboard a motor truck caused comments upon the field of motors and the passing of the horse.

Hal Ensign, the racing stallion, while on the track at Woonsocket, lost his footing and, falling, snapped a bone in his left foreleg. After the limb had been set in a plaster cast by a veterinary, request was telephoned to the R. L. Morgan Co., at Worcester, for use of one of their powerful trucks.

This up-to-date way of moving the horse to its home quarters in Maynard came as a relief from the many changes incident to getting to the station and taking train, it being politic to move the animal as little as possible. The truck was reversed into a two-foot hole dug for the purpose of lowering a platform, and a board gangway constructed. After the racer was aboard, a staging was built on the truck around the animal to steady him. To save discomfort to the injured horse a slow run was necessary.

Pierce-Arrow Line for 1910

When the announcement was made a short time ago that the output of the Pierce-Arrow Motor Car Company for 1910 would consist entirely of six-cylinder cars, it was foreseen that the demand would be sufficiently heavy to tax the capacity of even the enormous plant on Elmwood Avenue, Buffalo. The Pierce-Arrow Company had decided, however, to devote the plant entirely to the production of six-cylinder models, and in this way prepare to meet the demand.

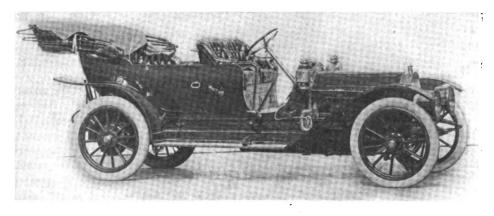
This determination, with the added facilities, will enable the company not only to increase its output materially but to make early deliveries in quantity, considerably more than 100 of its new forty-eight horsepower cars being in the hands of owners already. Another factor in the increase and promptness in delivery has been due to the fact that the new Elmwood Avenue plant has been in operation long enough to allow thorough organization and its resultant smoothness of operation.

The confidence of the company in the new product is shown by its entering all new models in the Glidden and Hower trophy contests this year. Both of these trophies, one for touring cars and

the other for runabouts were won by Pierce-Arrow cars, they being the only ones to come through the road test of 2,636 miles, and the two-days' technical examination showing that not a part had been strained and that not a bolt, nut or screw on the car has become loosened throughout the long run over roads considered worse than any ever before experienced on a run of this kind.

Three horse-powers, seven chassis and seventeen styles of bodies are comprised in the new assemblage of Pierce-Arrows. The horse-powers are 36, 48 and 66, following, approximately, the power formula of the Association of Licensed Automobile Manufacturers. Three chassis are provided for the 35 hp. car, one for the runabout, one for the miniature tonneau and another for the touring car, brougham and landau-On the 48 and 66 hp. cars one chassis suffices for the runabout and miniature tonneau and another for all the other models. The entire list of cars made by the company and their prices are:

36 horse-power.—Runabout. seating 3, \$3,850; miniature tonneau, seating 4, \$4,000; touring car, seating 5, \$4.000; brougham,

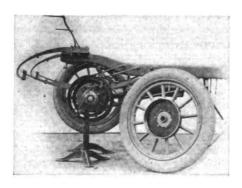


36 HP. PIERCE-ARROW CAR FOR FIVE PASSENGERS

seating 5, \$4,900; landaulet, seating 5, \$5,000.

48 horse-power.—Runabout, seating 3, \$4,850; miniature tonneau, seating 4, \$4,850; close coupled, seating 5. \$4,850; touring car, seating 7, \$5,000; suburban, seating 7, \$6,100; landau, seating 7, \$6,200.

66 horse-power.—Runabout, seating 3, \$5,850; miniature tonneau, seating 4, \$5,850; close coupled, seating 5, \$5,850; touring

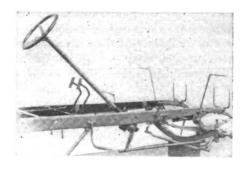


REAR SPRING AND BRAKE DETAILS

car, seating 7, \$6,000; suburban, seating 7, \$7,100; landau, seating 7, \$7,200.

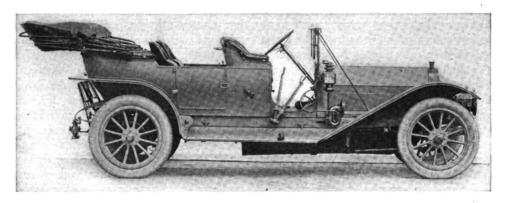
Although the cars are of different horse-power, the three models are more nearly standardized, in so far as similarity and design is concerned, than in previous years. All of the cars have their cylinders cast in pairs. This practice was followed in the 36 and 48 hp. cars last year, but not in the larger models. All have the side-lever control and the selective type of transmission, with four speeds forward and reverse, and all have three-quarter elliptic springs in the rear. Two of the three new models will be larger than those produced last year. The bore of the 36 hp. car has been increased from 3 15-16 inches to 4 inches. . This would give an A. L. A. M. rating of slightly more than 38 hp., but because the increase is comparatively small and because almost all formula horse-power ratings are largely nominal, it was decided to make no change in the intimated power of the model. Last season the largest Pierce-Arrow was one of 60 hp., the motor being of the six-cylinder type, with a bore of 5 inches and a stroke of 5½. This season the bore has been increased to 5¼ inches, giving the motor an A. L. A. M. rating of a fraction more than 66 hp.

Economy for the user has always been a matter of the deepest consideration in the design of cars of this make, and a marked step in this direction has been made by the addition of an oil ring or groove in the bottom of the pistons. By this simple means it has been possible to make an increase of 50 per cent. in the mileage on one charge of lubricating oil. This can scarcely be regarded as a change in the oiling system that has been employed so successfully in former years, as it marks the only deviation. This system provides for the feeding of the oil from the main reservoir, located over the exhaust side of the motor, direct to the motor bearings. Passages in the crank-shaft carry the



FRONT AXLE AND STEERING GEAR

oil through, and it issues in the form of spraying into the crank case. Excess of oil on the cylinder walls is prevented by baffle plates and by the oil rings at the bottom of each piston. A reservoir in the bottom of the crank-case receives the oil when the spray is condensed, and there it is strained and pumped back to the main reservoir above the motor. The bottoms of both the crank-case and



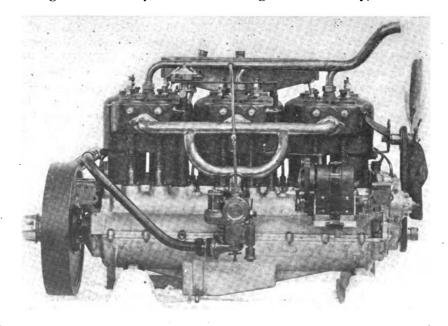
66 HP. PIERCE-ARROW SEVEN-PASSENGER TOURING CAR

main reservoir are inclined to an extent sufficient to provide a flow of oil on any grade. The perfect lubrication of the Pierce-Arrow motors is attributed as one of the causes of their long life.

The Pierce-Arrow motor has its cylinders cast in pairs, with the inlet and exhaust valve on opposite sides. The carburetter is of the automatic auxiliary air inlet type, and is of special Pierce-Arrow design. It is water-jacketed and

heated air is drawn from about the exhaust piping. The bearings of the motor are plain and seven in number, a bearing between each cylinder having long been a practice in the construction of the car.

Recently, in a lecture before the Society of Automobile Engineers, the statement was made by a professor in one of the most prominent engineering colleges in the country, that in a series



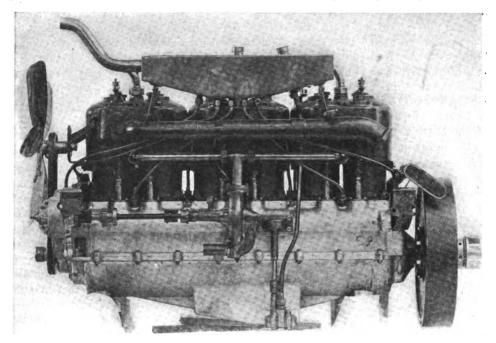
INLET SIDE OF ENGINE

of tests he had found the thermol efficiency of the Pierce-Arrow motor to be 20 per cent.. as high as had ever been obtained by any motor using gasolene as a fuel, either stationary or otherwise. Undoubtedly this is due in part to the method of controlling the exhaust gases. The exhaust piping is arranged after the plan of the ejector system in common usage on engines of other types. It is jointed between each pair of cylinders, which allows for a sliding movement to care for expansion and contraction and, incidentally, insures the motor and crank-case against any strain that might come from the rapid expansion of a one-piece exhaust pipe. Just below each of these joints the exhaust passage is enlarged to an extent that a partial vacuum is formed, in that way creating a suction that draws the expended gas from the cylinders instead of leaving it to force its way to the muffler. Brake tests have shown that the efficiency of this exhaust is such that the motor develops between four and five per cent. more power with the exhaust pipe connected than with it off.

Control of the motor is obtained through spark and throttle levers under the steering wheel. This wheel is 13 inches in diameter, and greater ease in handling the new models has been obtained by making the two levers one inch longer and raising the fulcrum end one and one-half inches higher. foot accelerators are fitted to Pierce-Arrow cars, the company holding that this attachment is too liable to cause undue strain on the motor, and also owing to the liability of accident through sudden and unintentional acceleration. The control of the Pierce-Arrow cars through levers under the steering wheel appeals to experienced drivers, because of their ability to govern both the movements of the car liv the steering wheel and the speed of the motor with one hand while shifting gears with the other. Two systems of ignition are provided, operating through separate wires and spark plugs. The first system is by storage battery and is used principally for starting the motor. The second ignition system is by a Bosch high-tension magneto. For the batteries six coiled and one master vibrator are used, thus doing away with the necessity for adjustments of six separate coils. The coils are located on the dash and the switch within easy reach of the left foot. Additional control of the car, as a whole, is given through the two side levers. That for shifting gears has, on the new model, a shorter travel owing to the raising of the housing on the transmission gear The lever has also been lengthened two inches to afford greater ease of control. The hand-brake lever is not interconnected with the clutch—this in order that the motor may be used as a brake in conjunction with the lever hand-brake. The foot-brake, however, is connected with the clutch, and its application throws the clutch out of engagement. The brakes on all the models have been increased in size. On the 36 hp. car the drums are one-half inch wider and one inch larger in diameter, while the drums on the 48 and 66 hp. cars have been increased 3-16 and 1 inch, respectively. In addition, the brake drums are steel stampings, and raybestos of 3-16 of an inch thickness will be used instead of the 5-32 of an inch liners formerly used. Not only are the brakes on the new models larger, but they are also easier to apply on the 36 hp. car, the leverage on the footpedal having been increased as well as that on the clutch pedal.

All in all, the most marked changes made in the new Pierce-Arrow models, with the exception of one of a strictly mechanical nature, and which will be spoken of later, are wholly along the lines of greater ease and thoroughness of control on the part of the operator and the highest degree of comfort possible consistent with adequate strength under all road conditions. Under the control features may be listed the greater leverage of the foot and clutch pedals, and the hand-brake and gearshift levers, greater brake area and improved accessibility of the spark and

inches; 48 hp., 134½ instead of 130 inches; 66 hp., 140 instead of 135 inches. The runabout wheel bases are: 36 hp., 119 inches; 48 hp., 128 inches; 66 hp., 133½ inches. The increase in wheel bases has made it posible to bring the radiator directly above the front axle, another point of advantage, aside from the easy riding quality. While it



EXHAUST SIDE OF ENGINE; AIR PUMP NOT YET ATTACHED

throttle levers. The two most important changes concerning the comfort of passengers are in the equipment of all cars with three-quarter elliptic springs in the rear and the lengthening of the base. Three-quarter elliptic springs were used on the 36 hp. cars last year, and with such marked success that they have been adopted for the larger cars. In addition to these springs, all models, as in past years, will be fitted with shock absorbers. The following changes in wheel bases from last year have been made in the touring car chassis: 36 hp., 125 instead of 119 is still a strictly five-pasenger car, the body of the 36 hp. touring car has been made 2½ inches longer and the rear seat will be 3 inches wider. The bodies for the brougham and landaulet cars will have room for three passengers on the rear seat and, in addition, will have two drop seats, this being possible through the lengthening of the rear portion of the body to that extent. Another factor for comfort is the increase in wheel sizes. For the new season all 36 hp. cars will have 36-inch wheels, instead of 34-inch; the 48 hp. cars will have 37-inch wheels in the rear, instead

of 36-inch, and the 66 hp. cars will be equipped with 38-inch wheels in the rear, instead of 36-inch. Convenience, as well as comfort, has been attended to in the design of the new cars. The running boards are two inches wider and have been cleared of everything except the battery box and tire carriers. The space between the running boards and the frame has been entirely closed with a metal apron, and the front end of the rear springs encased. Heretofore it has been customary to mount a light generator on the left-hand running board, but all of the new models will be furnished with a Prest-O-Lite tank, and this will be located in the rear tool box. A valve on the outside makes it possible to turn on the lights without opening this box.

Mechanically, the change of the most importance made is the use of roller-bearings throughout in the front wheels and the outside bearings for the rear wheels. Annular ball-bearings have been used previously, but owing to the great amount of side thrust that makes itself an ever-pressing factor, the decision was reached this year that better service could be obtained through the roller type. The inner bearings of the rear axle construction, as well as those of the transmission, are of the annular ball type.

The Pierce-Arrow construction, mechanically, is the result of nine years of evolution, and each year during that time has represented a high type of design, the best material it has been possible to obtain on the market and the best grade of workmanship procurable. The same has been true of its body work, and the new season sees a continuation, accentuated if anything, of its policy of using cast aluminum for body material. Cast aluminum is used in preference to the sheet metal, because of its ability to withstand blows that would dent and mar the other, its far

greater strength throughout, its safety, insurance against springing and checking, and its adaptability for ultra-fine finish. Only enough wood is used in the Pierce-Arrow bodies to furnish a ground-work for upholstery. Even the dashes and battery boxes are of cast aluminum, and in this way a parity in strength and finish is maintained between these parts and the body. deed, this same parity is carried to the hoods, which are made of sheet copper, as it has been determined that this metal, subject to the heat as the hood is, will retain better than any other the finish and strength it has when it leaves the factory.

The Pierce-Arrow Motor Car Conipany is one of the very few motor car concerns in the country that makes all of its own road wheels, as in this matter it is able to maintain the high standard in material and workmanship that marks the car as a whole. Both spokes and felloes are of carefully selected second-growth hickory, the care shown in the selection being indicated by the fact that, nothwithstanding the fact that the very best material obtainable is purchased, between 15 and 20 per cent. is rejected after it has passed through the first machine operation. The result of this is shown by the fact that the conpany, during the past year, has not had to replace a single wheel through breakage during legitimate road use of any kind. The wood used in these wheels is bought far enough in advance to permit its thorough curing at the Pierce-Arrow plant before use, and during its manufacture into wheels is inspected after each of the twenty-seven operations which go to make it a part of the car as a whole. A great point of convenience with Pierce-Arrow owners has always been the interchangability of bodies. This permits a touring body to be used during the summer months and an enclosed body during the winter on the same chassis. That this chassis adaptability is appreciated is shown by the fact that last year over one-fifth of the orders received called for an extra body, showing that the owner wished to fit his car for all conditions of weather. This year the touring, brougham and landaulet bodies are interchangeable on the 36 hp. car, and on the 48 and 66 hp. models the close coupled, touring, suburban and landau bodies may be changed.

It has always been a point with this company to deliver its cars to buyers thoroughly equipped for road use, and this year the list of what might come under the head of accessories has had two important additions in the Spencer air pump for tires and a Prest-O-Lite gas tank. The Spencer air pump is located under the hood on the exhaust side of the motor. It is fastened securely to the frame and is fitted with a gear wheel, which, when the pump is needed, connects with a sliding gear on the water-pump shaft. When the air pump is not in use the gears are idle. The tube for connecting the pump and the tires is fitted with an air gauge which tells when the tire pressure is at the proper point. The Prest-O-Lite tank is placed in the tool box at the rear of the chassis, the pipes running to the lamps being in a protected position within the channels of the side members of the In addition to these conveniframe. ences the cars are fitted with trunk racks, located at the rear of the chassis; two gas head lamps, two side and one rear lamp, lighted by either oil or incandescents, wiring for the later being a part of the regular equipment; a horn, complete set of tools, gasolene tank gauge on dash, odometer, coat and robe rail, extra tire carriers, folding footrest, a Sprague on all except the 36 hp. cars, two auxiliary seats, either Pullman or folding type in the 48 or 66 hp. models, and Yale locks with a universal key on both sides of the hood, the dash cabinets, tool compartment and oil and grease and Prest-O-Lite tank compartments. In addition to these, all enclosed cars are fitted with a dome light and battery for operating it, a toilet case and speaking tubes.

In the following table it should be explained that the A. L. A. M. formula uses as a basis in computation a piston speed of 1,000 feet per minute. On this plan the number of revolutions of the 36 and 48 hp. motors under the A. L. A. M. rating would be 1,263 revolutions and the 66 hp. motor 1,090 revolutions.

Nominal horse-power of Pierce-Arrow motors under various formulas:

	36	48	66
A. L. A. M	38.40	48.6	66.20
Beaumont, 750 rev	30.48	43.32	63.72
Beaumont, 1000 rev	40.68	57.72	84.90
Royal Automobile Club	46.26	51.75	69.93
Motor dimensions, w	heelba	ise and	d tire
sizes of Pierce-Arrow c	ars:		

	36 hp.	48 hp.	66 hp.
Motors	4x43⁄4	4½×4¾	51/4×51/2
Runabout and miniature ton	ŧ		
neau	119	128	1331/2
Allother styles	125	1341/2	140
Tires-			
Runabout and miniature ton			
neau	36x4	36x4½	37×5
All other styles,			
front	36x4	36x4½	37×5
rear	36x4½	37×5	38x5½

"Aviation Week" at Rheims, which began August 22, owes much of its success to the Marquis de Polignac, the president of the committee in charge. The Marquis is the head of the firm of Pommery and Greno, of Pommery champagne fame.

An automobile 'bus service was recently established between Plainfield and Metuchen, N. J. The route is via Oak Tree.



WEEKLY JOURNAL DEVOTED TO THE INTERESTS OF AMERICAN AUTOMOBILISTS.

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The Speedway

Abnormal heat, impenetrable dust on the first turn, and flying tar, which blinded the drivers, were the causes of the lamentable deaths at the opening day of the Indianapolis Speedway.

Poor Bourque was not in physical condition to drive a 250-mile race at the break-neck speed which was set by all the drivers from the outset. When changing tires Bourque was seen to pinch his arms, and later his mecanicien, who perished with him, was noticed rubbing his arms also while he was driving the car. In taking the last turn on the home stretch, on what proved to be his deathride, Bourque was, no doubt, so exhausted that he forgot to straighten out his car after making the turn, and ran straight into the ditch. Both Bourque and Holcombe were thrown, and the car turned three somersaults and landed on the front wheels, which were demolished, while the rear wheels remained intact.

The second day the races were shorter, and no casuality occurred. This should have induced the officials to shorten the proposed 300-mile race on the third day, especially when it was apparent that nearly all the drivers were worn out.

The speedway is ideal for speed, and the promoters, especially Mr. Carl Fisher, deserve great credit for what they have accomplished in a short space of time, particularly when it is known that there was about forty days' rain in Indianapolis while construction was going on, during which time work had to be stopped.

The first impression received when approaching the Speedway is imposing—grand stands, judges', timers' and press stands are all well located, and everything was in perfect working order. Starter Wagner handled the races with a snap which we have never before witnessed.

Track racing, we all know, is a dangerous business, but the promoters did everything to minimize all risks.

The lesson to be learned from this lamentable accident is, that in future the program of all races should be prepared with an especial eye to the capabilities of the drivers, so that they should not be set a task beyond physical endurance. To call upon a man to drive for four or five hours under a semi-torrid sun is too much, even on a 2½-miles course which has been made as perfect as a race track can be made.

If care is taken in preparing programs contests of this character can be kept out, but after announcement of a long-distance race has been made, justice to the public requires that it shall be run. President Speare, of the A. A. A., endeavored to have the distance of the fatal race shortened, but it had been announced and the public protested against any reduction being made. Therefore, the scrutiny of programs should come before they are made public.

Furthermore, to guard against the acceptance of entries of drivers in poor physical condition, an examination of such drivers should be made before the race in order to determine whether they are competent to undertake such an exhausting task as is before them. No driver who cannot successfully undergo such an examination should be permitted to start.

E. E. S.

Fire Engine Horses Are Doomed

What our correspondent styles "the death knell of horse-drawn fire apparatus," was sounded last week. The sounding occurred at the annual convention of the International Fire Chiefs' Association, at Grand Rapids, Mich., and the "knell" was the concensus of opinion that horse-drawn apparatus has had its day. The superiority of motor-driven apparatus is so evident, the saving being in both time and money, that fire departments are finding that they cannot afford to refrain from adding the self-propelling apparatus to their fire-fighting plants. Thus is the horse slowly but surely being put aside. His disappearance is only a matter of time.

Polar Adventures End in Naught

It is only a short time since the South Pole narrowly escaped being discovered by Lieutenant Shackleton in a motor sledge. Now the North Pole has its day of success. Walter Wellman has just failed in his attempt to fly from Spitzbergen to the North Pole in a dirigible balloon. The game has only begun, however, and will be pushed until successful.

Chalmers on Advertising and Salesmanship (Continued from page 1422)

the second is the kind that you have to tell three or four times, and the third is that great business-producing, creative lot of men who don't have to be told. They have initiative. They know what to do and they go ahead and do it. Dewey had initiative when he cut the cable at Manila, because he was on the ground and knew better what to do than the men at Washington did. What we call skill in a surgeon is initiative in a business man. If a surgeon had you on the table and had operated on you for appendicitis, and found he had made a mistake and some other condition existed, he hasn't time to go and take a book from a shelf and say, "I will read up on this subject." No, he has to go ahead and finish the job, whether it is your finish or his finish. They call that skill in a surgeon, but it is initiative in a business man, because he must face critical situations; he must face untried problems, and must solve them for himself. He must do something. I am more thankful every day that I live in a country where men have an equal chance, where poverty is no barrier to progress, but in many, many cases is a positive help, because it is only by learning to overcome the obstacles of our youth that we are taught to do things and know things, and are taught the value of a dollar, that we learn to overcome our troubles in business and are able to solve the knotty problems that confront every business man.

I remember once of being in Germany at a salesman's convention, and there was one man there who had been banner agent for three years in succession. In awarding him the prize at this convntion I asked him to tell the other agents why he had led all the rest for three years. He could not have answered better if he had talked a day, and yet he answered in practically one sentence, when he said: "I defy anybody in all Germany to ask me a question about my business that I cannot answer." That was the great secret of his success.

Now, gentlemen, I have given what I consider are necessary qualities to a successful salesman, advertiser, or business man, but the man who handles other men will succeed just in proportion as he keeps his mind on the important things he has to do. In conclusion I want to give you a suggestion as to what I have done for many years to keep my mind on the most

important things. I keep before me at all times the ten most important things, and I have these in a folder on my desk, and as the things are attended to they are marked off and my secretary keeps making a clean sheet of the ten most important things, because I only want to keep my mind on important things. Transfer to some one else the details, because we men who handle other men succeed just in proportion as we can intelligently direct their efforts. The actual work we do ourselves doesn't amount to anything; it is what we can succeed in getting other to do that counts.

I consider that advertising is the 'greatest business in the world, viewed from many standpoints. In the first place, there is perhaps more money spent on advertising to-day than on nearly anything else you can think of, and yet it requires more skill and more care in the spending of it than almost anything else connected with business. It seems to me that an advertising man has a right to feel very proud of his profession. Not only because it is a profession which calls for talent and ingenuity on the part of those who practice it, but more especially because it is the profession which is doing more than any other, I believe, to solve the world's biggest problem. The world's biggest problem is the problem of distribution—the problem of getting things from where they are to where they ought to be. It is the business of the advertising man to find markets; to create demand, and to cut down cost to the consumer, or increase the profiet of the manufacturer, as the case may be, through lessening selling expenses.

It is really wonderful when you stop to think of the influence which an advertising man can wield and the opportunity for service to his employer and to the public which is his: a good salesman is permitted to talk to one person at a time, or at best a half dozen persons perhaps, but a good advertising man has the privilege of talking to millions at one time. There is a great responsibility resting on the shoulders of advertising men, and an organization such as the Associated Advertising Clubs, and a gathering such as this one, are evidences that many of you realize these respnosibilities and are putting forth every effort to measure up to them. It has been a great pleasure and a great profit to me to be with you, and I wish for all of you individually, and for your organization, the greatest measure of success.

TRADE DEPARTMENT

Stoddard-Dayton Agents Meet in Convention

It is the custom of the Dayton Motor Car Company to have its agents meet in convention annually to inspect the new models and to discuss matters relating to the disposal of the following season's product. Heretofore the convention has been held at the Stoddard-Dayton factory at Dayton, O., but this year it was transplanted to Indianapolis, where it convened during the races at the Indianapolis Speedway, the head-quarters being the Denison Hotel.

The conventions were held in a tent, erected at the speedway grounds for the purpose, and the agents, who came as guests of the factory, met in the mornings of the three days racing. An excursion train of seventeen cars brought the employes of the factory to the speedway on the last day of the races.

Inside a huge tent, and surrounded by magnificent decorations, fifteen 1910 Stoddard-Daytons of all types were placed on exhibition. It was at first intended that this exhibition should be private, but it was decided to allow the public to have its first view of the 1910 product of the Dayton concern along with the agents, and thousands of visitors to the races filled the tent. The cars were of all types from roadsters, runabouts and baby tonneaus to five and seven-passenger touring cars. A characteristic 60 hp. speed car was also exhibited.

The cars that attracted the most attention were the limousines, landaulets and coupes in most elaborate upholsterings of whipcords, leathers and broadcloths, with horn and every style of trimmings. These cars ranged in price from \$2,800 to \$3,800. A 30 hp. limosine at the former price was continually surrounded. A 30 hp. coupe at \$2,800, with steering wheel brake and gear lever arranged to allow entrance to driver's seat from both sides of car also attracted considerable attention.



BANQUET OF THE STODDARD-DAYTON AGENTS

Rushing Matters Under Difficulties

The location of Morgan & Wright's huge tire and rubber goods factory, on the banks of the beautiful Detroit River, from the standpoint of scenery, light, air and water supply, is probably the finest factory site in the country. It is doubtful, however, if these advantages—particularly the abundant water supply—appealed to the engineers in charge of installing the recent additions to their tire building equipment.

The steam presses in which the tires are cured are so ponderous that it is necessary to go down to bedrock to get a proper foundation for them.

As the excavations proceeded below the level of the river, water oozed through into the shafts to such an extent that it was necessary to install a big centrifugal pump and run it night and day to permit of continuing the operations. Even then the men were compelled to work up to their waists in water most of the time. In spite of these difficulties it is expected that the new equipment will be ready for operation inside of a few weeks.

Addition Must Be Ready September 1

Under a forfeit of \$100 a day, work is now being rushed on the new four-story brick and concrete addition to the F. B. Stearns factory, in Cleveland, Ohio. Under terms of the contract, machinery in the new building must be in running order by September 15.

For the past year the Stearns factory has been badly cramped because of lack of room, the machine and forge shops being particularly hard hit. The new addition, 120 x 180 feet, will materially aid the production department, and provide for much quicker delivery.

Winton Philadelphia Branch's New Home

The Philadelphia branch of the Winton Motor Carriage Company is to have

a new home more than twice its present size. The building now occupied at 246-248 North Broad Street, is to be torn down and replaced by a more modern structure. Temporarily the Winton people will seek other quarters, only to return to the present address when the new building is completed Jan. 1.

To Drive from New York to Texas

A journey from New York to El Paso, Texas, was started last yeek by C. A. Root. Root, who was formerly an automobile dealer in the Middle West, took with him an expert mechanic, and contemplates traveling at least 250 miles a day. The tire equipments selected were Continentals, Mr. Root deciding to adopt them after very careful consideration, and states that his decision in using them was because of their long-wearing qualities.

A Story of Upkeep Cost

"Winton Six Upkeep Book, Second Year," is the title of a booklet which has just been issued by the Winton Motor Carriage Company. It tells the story of the upkeep contest, the second annual event, recently conducted by the Winton Company, which showed that ten Winton Sixes had been driven 118,503 miles on an upkeep expense of \$127.30.

The report of the committee which made the award, the names of the owners of the winning cars, statements by the prize winners and other interesting data is embodied in the booklet.

Titus Goes with Palmer & Singer

Fred J. Titus, for some years head salesman for the Harry S. Houpt Co., has just made an alliance with the sales force of the Palmer & Singer Mfg. Co., and on September 1 will begin his new duties, in the capacity of assistant sales manager. in charge of out-of-town territory.

Agreeing on Their Stories

Anent the varied announcements concerning tire performances in the Glidden tour is a suggestion that, in future, the different makers get together on an agreed statement of facts before submitting their respective claims to the public.

"We are willing to do that very thing," says W. B. Miller, secretary of the Diamond Rubber Co., "but we would want experienced tire men to keep the record and act as arbiters. We had on the tour this year four men who know all kinds of tires and tire mishaps intimately, and the result of their joint observations and inspections is supported by their affidavits, but another comes along with a different story, and there you are.

"Perhaps the public doesn't care, particularly. Such things work out right in the end, somehow, and nowhere more than in the automobile business. In no line of activity does the public more quickly bury false notions or so unerringly pick only the real gold from the unending glitter put forward."

A Tire Record That Means Something

A tire mileage record that many motorists will envy was made by G. W. Butler, who won first prize, \$1,000, in the lowest upkeep contest conducted by

one of the large automobile manufacturers. Mr. Butler is a chauffeur in the employ of J. E. Clenny, of Chicago, and his daily records were duly sworn to. The Diamond make of tires was used, and in 17,003 miles covered, gave an average of 11,289½ miles each, counting only the tires fully used up; or an average of 9,045 miles, including tires in use when the contest closed. A hint to automobile owners is found in Mr. Butler's system, by which, when a rear tire had run 3,500 to 4,500 miles, it was changed to the front.

To Equip Wintons With Bosch Magnetos

Hereafter the Bosch magneto will be supplied as the regular ignition equipment on Winton cars. The adoption by this well-known concern of the Bosch, is but one of the many signs of the growing popularity of this device, and indicates the confidence which the Winton people have in it.

Lane steam cars are going well in New York, the Lane Sales Company, distributors of the Lane product, reporting that they have in hand more than double the orders for the Lane car than they had a year ago.

The Mitchell Motor Car Co., of Racine, Wis., has increased its capital stock from \$1,000,000 to \$2,000,000.

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INDEX TO ADVERTISERS

Instruction-

Automobiles (Electric)—	
Baker Motor Vehicle Co	1389
Studebaker Automobile Co	1382
Woods Motor Vehicle Co	1385
Automobiles (Gasolene)—	
Chaimers-Detroit Chaimers-Detroit Motor Co	1383
Haynes Automobile Co	1444
Hudson-Hudson Motor Car Co.	1446
Inter-StateInter-State Automobile Co.	1446
Hudson-Hudson Motor Car Co	1446
Matheson-Matheson Motor Car Co	
Maxwell-Briscoe Motor Co	1445
Mitchell Motor Car Co	144)
Mora—Mora Motor Car Co. Overland Automobile Co.	1446
Palmer & Singer Mfg. Co	1445
Poerless Motor Car Company	1416
The Pierce-Arrow Motor Car CoInside Back	Cover
Rambier-Thos. B. Jeffery & Co	1390
Renault-Renault Freres Selling Branch	1381
StearnsThe F. B. Stearns Co	
Studebaker Automobile Co	1182
The E. R. Thomas Motor Co.	1446
Stevens-Duryea Co. Studebaker Automobile Co. The E. R. Thomas Motor Co. Winton-Winton Motor Carriage Co Inside Front	Cover
Automobiles (Steam)—	_
The White Company Back LaneLane Sales Co	Cover
LaneLane Sales Co	1770
Batteries-	
Stanley & Patterson	
Stanley & Patterson	1413
Bodies-	
Boules—	
1900 A A A Tour	1412
1909 A. A. A. Tou	1413 1446
Springfield Metal Body Co 1909 A. A. A. Tour Auto-Rebuilding Co.	1413 1446
Champagnes	
_	
Champagnes— Pommery.	1447
Champagnes— Pommery	1447
Champagnes— Pommery. Classified Advertisements. Coils—	1447 1448
Champagnes— Pommery	1447 1448
Champagnes— Pommery. Classified Advertisements. Coils— Heinze Electric Co.	1447 1448
Champagnes— Pommery. Classified Advertisements. Coils— Helaze Electric Co. Dust Preventives—	1447 1448
Champagnes— Pommery. Classified Advertisements. Coils— Heinze Electric Co.	1447 1448
Champagnes— Pommery. Classified Advertisements. Coils— Helaze Electric Co. Dust Preventives—	1447 1448
Champagnes— Pommery. Classified Advertisements. Coils— Heinse Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding—	1447 1448
Champagnes— Pommery. Classified Advertisements. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co.	1447 1448
Champagnes— Pommery. Classified Advertisements. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic—	1447 1448
Champagnes— Pommery. Classified Advertisements. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co.	1447 1448
Champagnes— Pommery. Classified Advertisements. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Sandard Welding Co. Eye Tonic— Murine Eye Remedy Co.	1447 1448
Champagnes— Pommery. Classified Advertisements. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrent Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Fenders—	1447
Champagnes— Pommery. Classified Advertisements. Coils— Heinze Electric Co. Dust Preventives— Tarvis-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Fenders— Auto-Rebuilding Co.	1447
Champagnes— Pommery. Classified Advertisements. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Penders Auto-Rebuilding Co. Graphite—	1447
Champagnes— Pommery. Classified Advertisements. Coils— Heinze Electric Co. Dust Preventives— Tarvis-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Fenders— Auto-Rebuilding Co.	1447
Champagnes— Pommery. Classified Advertisements. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Fenders Auto-Rebuilding Co. Graphite— Joseph Dixon Crucible Co.	1447
Champagnes— Pommery. Classified Advertisements. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Penders— Auto-Rebuilding Co. Graphite— Joseph Dixon Crucible Co. Ignition Devices—	1447 1448 1446
Champagnes— Pommery. Classified Advertisements. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Fenders Auto-Rebuilding Co. Graphite— Joseph Dixon Crucible Co. Ignition Devices— A. R. Mosire & Co. Bosch Magneto Co.	1447 1448 1446 1447
Champagnes— Pommery. Classified Advertisements. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Fenders— Auto-Rebuilding Co. Graphite— Joseph Dixon Crucible Co. Ignition Devices— A. R. Mosler & Co. Bosch Magneto Co. C. F. Splikorf.	1447 1448 1446 1447 1447 1387
Champagnes— Pommery. Classified Advertisements. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrent Mfg. Co. Electric Welding— Sanadard Welding Co. Eye Tonic— Murine Eye Remedy Co. Fonders Auto-Rebuilding Co. Graphite— Joseph Dixon Crucible Co. Ignition Devices— A. R. Mosler & Co. Bosch Magneto Co. C. F. Splitdorf. Elsemann Magneto—Lavalette & Co.	1447 1448 1446 1447 1447 1447 1447 1447
Champagnes— Pommery. Classified Advertisements. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Fenders— Auto-Rebuilding Co. Graphite— Joseph Dixon Crucible Co. Ignition Devices— A. R. Mosler & Co. Bosch Magneto Co. C. F. Splikorf.	1447 1448 1446 1447 1447 1447 1447 1447

Correspondence School of Motor Car Practice	1447
Lamps— Badger Brass Mig. Co	1388 1444
Lubricants— Columbia Lubricants Co Joseph Dixon Crucible Co	1445 1447
Magnetos— Bosch Magneto Co. C F. Splitdorf. Eisemann MagnetoLavalette & Co. Heinze Electric Co. J. S. Bretz Co.	138 1447 1443 1384
Oils— Columbia Lubricants Co	1445 1379
Parts— Billings & Spencer Standard Welding Co	1447
Photo Engravers— Sterling Engraving Co	1445
Seats Auto-Rebuilding Co	1446
Second-Hand Dealers— Times Square Auto Co	1413
Shock Absorbers— Bi-Cal-Ky Auxiliary Spring Co Hartford Suspension Co	
Signalling Devices— Nightingale Whistle Co	1447
Spare Wheels— United States Spare Wheel Co	1444
Spark Plugs— A. R. Mosier & Co Standard Sales Co	1445 1443
Timers— A R. Mosler & Co	1445
Tires— Ajax-Grieb Rubber Co Continental Caoutchouc Co Diamond Rubber Co. Flak Rubber Co. Morgan & Wright. Republic Rubber Co.	1389 1444 1443 1381 1447
Tire Grips— Weed Chain Tire Grip	1388
Tops— Sprague Umbreiia Co	
Travel— Detroit & Cleveland Navigation Co	1388
Wind Shields—	

News Notes

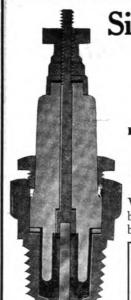
The Drummond Automobile Co., of Omaha. Neb., has taken the agency for the Herreshoff car.

Studebaker cars are to be handled in Trenton, N. J., hereafter by C. P. Weeden, at 432-38 Princeton Avenue.

The Pierce Great-Arrow, in which Jack Williams captured the Hower trophy for runabouts in the recent Glidden tour, is on view at the Harrolds Motor Car Company's salesroom on Fifty-fourth Street, New York.

The German Automobile Manufacturers' Association, co-operating with the German War Department, has agreed on standard sizes for the wheels and tires of power wagons. The German War Government pays a substantial bonus to all purchasers of motor wagons of certain types, which have been found suitable for military purposes, and whose purchasers pledge themselves to hold the vehicles in readiness for the War Department. The standards referred to were agreed upon at a meeting recently held at Berlin. In future all 4-ton vehicles will be equipped with wheels and tires of the following dimensions: Diameter of front wheel rims, 670 mm.; width of front tires, 120 mm.; diameter of rear wheel rims, 850 mm.; width of rear tires (double) 140 mm.; diameter of front wheels with tires, 830 mm.; diameter of rear wheels with tires 1.030 mm. A uniform method of fastening the rubber tires to the rims, known as the "slot fastening." was unanimously adopted. It is intended to also standardize other parts of motor wagons.

"We are frequently asked by careful buyers of motor cars as to how it is possible to profitably market a 30-35 hp., four-cylinder car for only \$1,250, which in so many respects possesses the refinements of detail, quality and advanced practices of the higher priced American and foreign cars," says R. E. Olds, president of the Reo Mo-" says R. E. Olds, president of the Reo Mo-Car Company. "Ordinarily speaking, that tor Car Company. would be a very difficult task, but with every modern facility at our command, combined with twenty-five or more years in gasolene engine and motor car building, we are happily able to meet the tremendous demand of to-day for a thoroughly reliable and efficient four-cylinder car at a moderate price. Of course, many essential factors enter into the attainment of this end. Scientific designing, making brains take the place of material; economy in manufacture; good, sound, up-to-date, economical factory methods; economy in selling and advertising, by producing exactly the kind of car people want. These are some of the factors whereby we are able to furnish the public with our new four-cylinder model at so surprisingly low a



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Newark, N. J .- Union Motor Car Company, with \$125,000 capital. Incorporators: Peter Broderson, Andrew Broderson and Forrest C. Stowers.

Jersey City, N. J.-The National Motors Company, with \$2,000 capital. Incorporators: B. S. Mantz, John R. Turner and L. H. Gunther.

Falls City, Tex.—South Texas Automobile Agency, with \$3,000 capital. Incorporators: Gus Schorach, A. H. Christian and R. B. Compton.

Albany, N. Y .-- Albany-Berne Auto Line, with \$20,000 capital, to conduct a general transportation business. Incorporators: Frank Tompkins, Henry Bins, W. T. Chesbro, P. N. Roney and Roy D. Fowler.

Plainfield, N. J .- The Tygard Engine, with \$250,000 capital, to manufacture Tygard engines. Incorporators: G. M. Neaghy, F. C. Tygard, W. E Buhl, E. E. Tygard and A. F. Randolph.

Waltham, Mass.-The Metz Company, with \$500,000 capital. Incorporators: J. C. Robins and C. J. Spiegelberg.

Rochester, N. Y .- Luitwieler Pumping Engine Co., with \$300,000 capital, to manufacture engines, automobiles, etc. Incorporators: S. W. Luitwieler, W. C. Smith, J. G. Haap and G. W. Rich.

Newark, N. J.—Essex County Overland Co., with \$100,000 capital. Incorporators: W. F. Acker. R. D. Crocker and H. H. Poole.

Gates, N. Y .- Hazard Engineering Co., with \$100,000 capital, to manufacture automobiles and engines. Incorporators: E. C. Hazard, G. E. Hazard, W. J. Robinson and J. Bennett.

San Antonio, Tex.-Lemly Mills Auto Co., with \$20,000 capital. Incorporators: R. W. Aiken, J. H. Gibson, Jr., and C. C. Mills.

Brooklyn, N. Y .- Sharpe Tire Protection Co. with \$150,000 capital, to grant patent licenses on automobile construction. Incorporators: G. W. Sharpe, W. S. Hurley and S. S. Whitehouse.

Minneapolis, Minn.-Minneapolis Motor Drivers' Club. Incorporators: Christ Owen, F. A. Ost, Mat Mills, Oscar Hall and George Gagne.

New York, N. Y .- The Trackless Trolley Co. of America, with \$150.000 capital. Incorporators: Charles R. Barrett, Sadie E. Wiener and A. Livingston Norman.

Guthrie, Okla.-The Southern Automobile Co., with \$4.000 capital. Incorporators: S. H. Criswell, J. V. Beugler and E. E. Criswell.

Automobile Calendar

August 22-29.—Aeroplane Races at Rheims, France, under the auspices of the Aero Club of France.

August 28.—Automobile Track Race at Erie, Pa.

August 26, 27, 28.—Three Days' Endurance Contest, under the auspices of the Minnesota State Automobile Association.

August 27-28.—Second 24-Hour Race at Brighton Beach, under direction of the Motor Racing Association.

August 29-September 3.—Small Car Competition, under direction Automobile Club of Germnay.

September 4-5.—Mont Ventoux Hill-climbing Contest, under the auspices of the Vanclusien Automobile Club.

September 4-5-6.—Three-day's endurance contest, under the auspices of the Council Bluffs (Ia.) Automobile Club.

September 4-19.—Austrian Aero and Industrial Exhibition at Linz.

September 5.—Aeronautical events at the Indianapolis Motor Speedway grounds.

September 6-11.—Six Days' Motor Carnival, under the auspices of the Lowell (Mass.) Automobile Club.

September 6-11.—Automobile Show in Minneapolis, Minn., in connection with the Minnesota State Fair.

September 8.—Automobile Track Race at Richmond, Va., under the auspices of the Richmond Automobile Club.

September 8, 9, 10.—Series of Automobile Events at Seattle, Wash., including 24-hour race and hill-climbing contest.

September 11-19.—Florio Cup Race, under the auspices of the Automobile Club of Bologne, Italy.

September 12.—Two Automobile Road Races, under the auspices of the Automobile Club of Ostend.

September 15.—Start of Endurance Contest from Denver to Mexico City.

September 17.—Race for Light Cars on the Ostend Circuit, under the auspices of the Belgian Automobile Club.

September 18.—Automobile Track Race at Syracuse, N. Y., under auspices of Automobile Club of Syracuse.

September 18.—Decorated Automobile Parade at Denver, Colo., in connection with the second annual Colorado Inter-State Fair and Exposition.

September 18-October 3.—International Aero nautical Exposition at the Grand Palais, Paris.

September 19.—Road Race at Los Angeles, Cal.

September 19.—Semmering Hill-climb.

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MONOGRAM OIL

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- September 21.—Stock Car Sweepstakes on Long Island course, under direction of Motor Contest Association, W. J. Morgan, manager.
- September 21-23.—Good Roads Convention of the American Automobile Association at Cleveland, Ohio.
- September 21-29.—Frank A. Munsey reliability tour from Washington to Boston and return.
- September 24-25.— Twenty-four hour race and short distance events, Indianapolis Motor Speedway.
- September 25-October 8.—Aeronautical events in connection with the Hudson-Fulton celebration, New York.
- September 30.-Floral Automobile Parade, under direction of the Washington, D. C., Automobile Club.
- September 30-October 8.—Exhibition of aeronautic motor engines at Paris.
- October 2-17.—Aeronautical Salon in the Grand Palais, Paris, France.
- October 4.—Dirigible balloon and aeroplane events, under the direction of the Aero Club of St. Louis.
- October 7.—Second Annual Stock Chassis Race in Fairmount Park, Philadelphia, under the auspices of the Quaker City Motor Club.
- October 8-9 .- National automobile race, Indianapolis Motor Speedway.
- October 16-31.—Automobile Show, to be held in City Park Armory, Dallas, Texas, in connection with the Texas State Fair.
- November 6 to 13.-National Automobile Show in Auditorium Armory at Atlanta, Ga. Auspices of National Association of Automobile Manufacturers. Samuel A. Miles and Alfred Reeves, managers, 7 East 42nd Street. New York.
- December 29-30 .- Fourth Annual Mid-Winter Endurance Contest, under direction of the Quaker City Motor Club.
- December 31-January 7.—New York City, Grand Central Palace; Tenth International Auto-Central Palace; Tenth International Automobile Show. Under management of the American Motor Car Manufacturers' Association with the Importers' Automobile Salon and the Motor and Accessory Manufacturers. Alfred Reeves, general manager, 505 Fifth Avenue, New York City.
- January 8-15.—Tenth Annual National Automobile Show in Madison Square Garden, New York, under the auspices of the Association of Licensed Automobile Manufacturers.
- February 5-12.-Ninth Annual National Automobile Show in Chicago, under the auspices of the National Association of Automobile Manufacturers.

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Mrs. John R. Ramsey has just finished her trip from New York to San Francisco .-- the first woman to drive across. Over 3000 miles and perfect ignition from start to finish.

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DAYTON MOTOR CAR CO.,

Dayton. Ohio.

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This roadster for the first time meets two great requirements. It is convertible from a two passenger roadster, as shown above, to the now so popular "pony tonneau" type. We furnish a detachable tonneau which can be taken on or off in a few minutes. Equipment same as touring car.

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A car even better than our four cylinder 30 H. P. of last season at \$1,750. A car even better than the model which ran 10,000 miles over country roads without stopping its engine. A car even better than the MAXWELL that was driven by Mrs. John R. Ramsey and her three women companions from New York to San Francisco. A car even better than the MAXWELLS which won first and second places in class D of this year's Glidden Tour. In short, a car that combines MAXWELL reliability with style and luxury.

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We have increased the power of the engine 17%—although we rate it 30 as last season. We give you 34 x 4 inch tires—this means economy. We have the rear seat wider.

These changes add to the easy riding qualities of the car. The magnificent new body gives it style—yet you save \$250 on a better car.

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Our plants have been enlarged—that's why. The number of cars that we build, doubled. We have added new automatic machines, some costing as high as \$20,000. This equipment and production has reduced manufacturing expenses to a minimum, while our selling and overhead remain the same-that

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Mechanically Right

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Our new model incorporates those mechanical features which have made MAXWELL and Reliability synonymous. MAXWELL features are recognized by all
automobile engineers as standard. The 3 point suspension—unit construction—disc
clutch—thermo syphon cooling—straight line shaft drive and metal bodies are principles that have been copied by makers of the highest priced cars, yet no car combines all except the MAXWELL.

MAXWELLS IN USE TODAY WATCH THE FIGURES GROW

MAXWELL-BRISCC





An even better car for \$1,500 than we could build last season for \$1,750. Longer wheel base, larger wheels, more powerful engine, a big, roomy, stylish body. We give you without extra charge a magneto, gas lamps and generator—over \$150 worth of extras that you pay for in other cars.

and Even Better

What Do Owners Say?

The real test of an autoombile is the verdict of the man who owns one. MAX-WELL owners tell us that no car is so economical to keep. Read what this one says—it is a sample of what over 18,270 owners say about the MAXWELL.

Baltimore, Md., Nov. 6.

Maxwell-Briscoe Motor Co., Gentlemen:

You will be interested to know that my Maxwell has been driven at least 20,000 miles over all kinds of roads, and it is a pleasure to give it my enthusiastic approval.

This applies to its avearing qualities and general reliability, no less than to its strength of construction and simplicity of mechanism.

Yours truly, J. W. WIESENFELD.

Don't Be Disappointed The demand for MAXWELLS has in the past exceeded the supply. Our dealers know that no other car offers as much for \$1,500. That's why every dealer has asked us to increase his allotment. May we send you our illustrated catalog and name of the nearest dealer who can fill your order promptly?

We Also Make Model "Q" 4 cylinder 22 H. P. runabout, sliding gear transmission, 3 speeds forward. Magneto equipped, price standard runabout \$850. Three styles of body.

Our model "A.A.," 12 H. P. runabout at \$550 is the greatest value ever produced. Costs less to own than a horse and buggy—costs no more to buy.

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If you want a car that will take you anywhere and bring you back without the usual road trouble, the reliability of the STUDEBAKER will settle the question for you.

If you are particular about style, you will find genuine beauty in our designs, taste in the minor fittings and a certain individuality that gets far away from the "factory-made" feeling.

We have letters by the dozens from many prominent people who have driven STUDEBAKER cars with perfect satisfaction, over all kinds of roads and in both hemispheres.

We will be glad to let you see what they say about their cars any time you call. Many of them have owned various makes of the highest priced foreign cars—but now swear by the STUDEBAKER.

Studebaker Automobile Co.

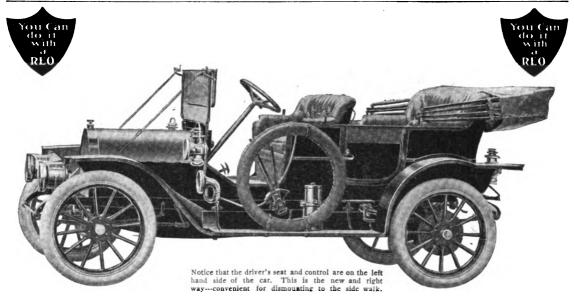
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How it was possible to build a car of this kind for \$1,250, or anything like it, is a long story told in the Reo catalog. We give you only a hint of it here.

A vast amount of power developed in a long-stroke motor (4 x 4½) with big intake and exhaust valves (one at the top, and one on the side of the cylinder) letting in and discharging a great amount of gas. Every working part of the car is thought out and developed to the last degree of perfection, and is machined down to the ultimate possible refinement. We put the costs where they count for power and effectiveness. The water-cooling, for instance: a strong, effective pump that rapidly sends a great amount of water right straight to the point where it is most needed (the exhaust valve) before cooling the rest of the motor. Cam gears designed to open the valves more quickly than they have ever been opened before in any car. Lubrication system which, without waste or contamination of oil, puts it where it does the most good (the main bearings of the motor, and the face of the cam gears) and afterwards sends a proper amount of oil spray to the working side of the cylinders and pistons. A clutch that positively engages and releases at the will of the operator. The whole working mechanism of the car from stem to stern is protected from dust, with the leakage of oil made almost impossible. The saving of friction has been worked out and is exemplified in this car to an extraordinary degree. Another great power-waster is lost motion, which is avoided first by great refinement in manufacture, and second, by making possible quick adjustments of all parts likely to become loose—the connecting rods and main bearings, for example (easily reached through a hand hole in the crank case), the bevel gear (easily reached through the rear axle housing), and so on throughout the entire mechanism.

Why only \$1,250? Thorough designing—making brains take the place of material. Economy of manufacture—good, sound, economical factory methods. Economy in selling and advertising—producing exactly the kind of car people want.

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The manufacture of automobiles has passed out of the experimental stage into the field of practical business production and distribution.

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THE WORLD'S GREATEST ANNUAL LONG DISTANCE ENDURANCE TESTS

The Glidden Tour in America The Prince Henry Tour in Europe

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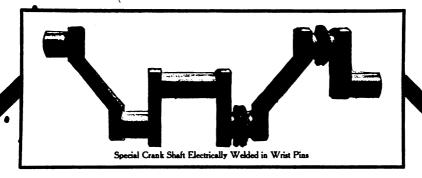
We are compelled to publish this by reason of several recent misleading advertisements, giving the impression that other magnetos were used on the winning cars in these contests.

Bosch-equipped cars have been the winners of every running of the Glidden and Prince Henry Tours.

BOSCH MAGNETO COMPANY

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ELECTRIC WELDING

There are still a few people who consider Electric Welding applicable only to parts where physical strength is of little or no importance. But this is far from being the true facts in the case, as we can emphatically prove, and if you are one of those prejudiced persons we only ask you to send for our "Booklet A," illustrating a few of the more important parts we have been so successful in welding by our process. If this will not convince you that Electric Welding is practical, then send us a sample or two of the work you wish to accomplish so we can make a few welds for you to test out. We know we can give you full satisfaction in both quality and price.



Front "I Beam" Axle Electrically Welded in Centre

THE STANDARD WELDING CO.

Western Representative L. F. McCLERNAN 1064 Monadnock Block CHICAGO

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The 1909 Year Book

(Motor Cyclopaedia)

T is the only publication of its kind useful to both the trade and the public, and is a work to which the manufacturer, the jobber, the retailer, the garage keeper, the repairer, thousands of persons engaged or interested in the trade, the purchasing agent, the engineer, the factory superintendent, the designer and the inventor, the owner or the user of the motor vehicle, the pressman, the legislator, the magistrate and the lawyer, must, at one time or another, have occasion to refer.

Many automobile users, diffident, or fearing to appear ignorant, obtained more information from the Year Book of 1908 than from any other source.

THE YEAR BOOK (Motor Cyclopædia) furnishes, in complete form, conveniently arranged and classified, information for the motorist and the trade, relating to the motor itself and to its application, directly or indirectly, to automobiles, boats, motorcycles and aerial apparatus.

THE TECHNOLOGICAL PART, alphabetically arranged, gives the modern signification (illustrated by cuts) of technical terms and expressions used in connection with motors, automobiles, motorboats, motorcycles and aeronautics.

The following list embraces subjects which are classified twice, first alphabetically and second by trades:

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Automobile Topics 103 Park Ave (Cor. 41st St.)
NEW YORK CITY

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\$10,000 Match Race of 300 Miles at Los Angeles, August 16, equipping the victorious Locomobile. Tire results unequaled.

World's Record in 200 Mile Track Race made by Oldsmobile at Cheyenne, August 17. Time 3 hours, 39 minutes, 21 seconds. Not a tire touched.

First and Second Places in Minneapolis Reliability Run, August 25-26, on Chalmers and Franklin, respectively. Not a tire touched.

Munsey Reliability Run Pathfinder's Record—a Chalmers car—1500 miles on Diamond Tires. One puncture total of all tire trouble.

THE DIAMOND RUBBER CO.

Akron, Ohio



"You Screw the Battery In-We've Done the Rest."

If you were an electrical engineer—you'd never let your new Car come to you with Storage Batteries for Reserve Ignition.

You'd certainly prefer a battery set that requires attention

only once or twice in the whole season!—and that's all the



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TIMES BUILDING, NEW YORK

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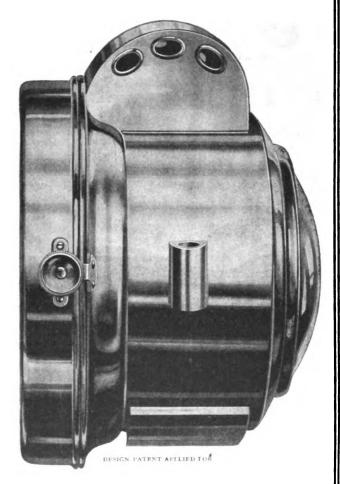
1st—Less air space horizontally, and therefore no useless currents of air to make flame flicker.

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we are enabled to make it larger in diameter, getting larger mirror, and not having it look so bulky on the car.



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Vol. XVIII.

NEW YORK. SEPTEMBER 4, 1909.

No. 22.

TABLE OF CONTENTS	
Officials' Stand and Track at the Brighton Beach 24-Hour and 28	Frontispiece
Topics	
Vanderbilt Cup Race Almost Certain	
Anti-Joy Ride Law Becomes Effective	
Basle in a Renault Wins 24-Hour Race	Illustrated
Curtiss Wins Chief Honors at Rheims	<u> </u>
Lowell's Speed Carnival Promises Well	Illustrated
Show Spaces at Atlanta to Cost Little	
Automobile Topics Touring Supplement—1909 A. A. A. Tour,	Section 8, Oakley
to Kansas City	
Fixing Responsibility for Indianapolis Fatalities	
Twin Cities Have a "Little Glidden"	<u></u>
Test of Headlights by Royal A. C	Illustrated
Importance of Signals to a Racing Driver	<u></u>
Colonel Sullivan's Car in the Manoeuvres	Illustrated
Lower Freight Rates for Automobile Shipments	
German Motor Trade's Bad Year	
Good Roads Convention to be Representative	
The Old and the New Vanderbilt Race	
A Good Friend but a Bad Master	
Strengthening Continental Selling Forces	
Stevens-Duryea Instruction Book	
Rambler First Reaches Point	
Reached New York With Los Angeles Air	
Index to Advertisers	
News Notes	
Incorporations	
Automobile Calendar	

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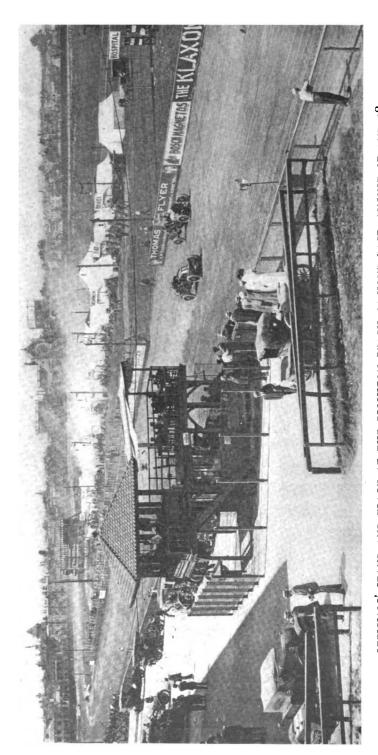
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THE AUTOMOBILE USERS' WEEKLY

Vol. XVIII.

NEW YORK, SEPTEMBER 4, 1909.

No. 22.

TOPICS

With September 1 joy riding in New York State became officially defunct. Prior to that time primitive measures against joy

riders were very much like a gamble—even a gamble in Wall Street—for the person addicted to joy riding was an odds-on favorite. He might be found guilty of the offense charged against him, but the chances were that he would evade conviction, while in the unlikely event of his being trapped a sympathetic magistrate or judge was likely to let him off with a reprimand or a friendly lecture. But now all is changed. The statute books are adorned with a law specifically aimed at joy riders, and carefully framed to prevent their escape when "caught with the goods." No longer is the owner of a car required to prove that the pilferer harbored an intention to deprive him of his property permanently; he need only bring testimony to the effect that he took the car without permission. Straightway the crime is proved, and nothing remains but to pronounce a verdict and impose sentence. A new era has been ushered in, and the motorist and the public are joint beneficiaries—the former because he is at last protected in the possession of his property, and the latter by reason of the summary stop that will be put to the nefarious practice of filling up a "borrowed" car with boon companions and sending it at top speed over streets and roads filled with traffic of all kinds, to the danger of pedestrians and other road users.

But the ending of joy riding is not all that New York has at last accomplished by a legislative edict. The practice of tampering with the car of another, to the end that petty spite or vindictive hostility shall be assuaged, has had a period put to it. Hitherto, valuable property, expensive to maintain and keep in order and easy to maltreat, has been at the mercy of any casual person who might know enough to inflict damage or be imbued with ill-feeling toward the owner or the garage keeper. Or cupidity might play its part, and the car be "put on the bum," merely to "make business good," or to provide work when things are slack. An easy code of morality was too apt to prevail, wherein the "rich man" and "poor man"

argument played its part and provided a salve for any conscience tending toward tenderness. How much this has added to maintenance cost no one will ever know, but that it has been no inconsnderable item will not be gainsaid. Now, however, the man who tampers with the car of another and wilfully or maliciously destroys property will be amendable to the law. Punishment will follow just as surely as the aggrieved car owner will take the trouble to prosecute.

What is fame? "Charley Wagner, the celebrated starter," is the way the inimitable Fred J. is termed by one publicity procurer.

One cannot help thinking of Count Zeppelin and wondering what he thinks of the week of aviation which has just closed at Rheims, France. The German aviator has accomplished wonders with the dirigible balloon, and his recent flight, which ended at Berlin and was followed by a presentation to the Kaiser, may almost be regarded as the culminating point in his career. No one knows better than Count Zeppelin, however, that he has almost exhausted the possibilities of his huge gas bag, and that it is to the aeroplane that we must look for the future progress of the art. That such progress is being made, and made rapidly, will scarcely be denied. The aeroplane has almost reached a point where it can be regarded as a practical machine. It still fails or falters occasionally, but these lapses become fewer and the mastery of the pilot over his strange machine becomes more complete as each week passes. The commercial era is plainly at hand, and it will not be very long before we shall be able to buy flying machines as easily as we bought motor vehicles a decade ago.

With September 1 the chronic joy rider will find that the "melancholy days" have come—come early and to stay.

A material contribution to the study of lamps has been made by the Royal Automobile Club as a result of the test which that premier British organization recently conducted. The report of the committee, which is reproduced in full on another page, contains much that is deserving of serious consideration, and its conclusion that there is only one proper height for lamps will undoubtedly form the basis of an investigation that will either confirm or lead to disagreement with the conclusions of the English body.

Can racing ever be made safe enough to make the sport a game worth the candle? That is really the question that must be answered if speed contests are to continue with the sanction and approval of representative bodies and without incurring the ban of the authorities The proper conduct of racing is a prime requisite, of course; indeed, it is put forth as panacea for all the ills that afflict the sport. But will even perfection in the conduct of races change the present condition—a condition which requires a driver or mecanicien to take his life in his hands every time he opens wide his throttle and feels his car bound forward under him? In a sense every sportsman risks life, but in any sport the chances of fatality are infinitely smaller than in automobile races, Unless the ratio can be brought somewhere nearer together, automobile racing on tracks must again pass under a cloud and become a fly-by-night, barnstorming affair that can do credit to no one.

Vanderbilt Cup Race Almost Certain

Another step toward the running of a Vanderbilt and Grand Prize race on Long Island this year was taken on August 30, with the incorporation at Albany of the Motor Cups Holding Company of New York. This is one of the most important movements made toward running the races under independent management since the settlement of the differences between the American Automobile Association and the Automobile Club of America last September.

In the announcement made last week by the Manufacturers' Contest Committee that a Vanderbilt Cup race would be held this year if a sufficient number of entries were assured, it was also said that the incorporation of the holding body would take place when the race was assured. From this it will be seen that the holding of a Vanderbilt and possibly a Grand Prize race on Loug Island this fall is practically assured.

The section of the agreement between the two American associations which relates to the running of the Vanderbilt and Grand Prize races is as follows: The two bodies agree to co-operate with each other in making the Vanderbilt Cup race and the Savannah Gold Prize races successes. After the races of this year the two cups are to be deeded to an independent racing association and are to be contested for annually, the Grand Prize Cup as an international trophy,, and the Vanderbilt Cup as the national trophy.

In the articles of incorporation the new racing body declares a capital of \$5,000, and states it is organized to promote automobile races for the silver cup donated by William K. Vanderbilt, Jr., and known as the Vanderbilt Cup, and for the gold cup donated by the Automobile Club of America, and known as the Grand Prize.

All of the directors named in the incorporation papers are members of the Automobile Club of America and are of New York. They are as follows: William K. Vanderbilt, Jr.; Harry Payne Whitney, Henry Sanderson, E. H. Gary, Colgate Hoyt, Henry B. Anderson, William Pierson Hamilton, Dave Hennen Morris, Henry B. Hollins and Mortimer L. Schiff.

Anti-Joy Ride Law Becomes Effective

September I was the day when two important laws passed last winter by the New York Legislature became effective. These measures are termed respectively the "Anti-joy-ride" and anti-tampering" laws, and their names indicate their character and scope. They provide severe penalties for infractions of the law, and there is little doubt that they will have a very marked effect upon crimes of this nature.

The Automobile Club of America, which was largely instrumental in securing the passage of these two measures, sent out to the press of New York State last week a statement calling attention to the fact that they became effective September 1 and urging that

wide publicity be given to the matter. The statement follows:

"The enclosure relates to laws which were passed by the last Legislature of this State, to take effect on the first proximo.

"In our observation the fact of their existence has been the subject of comparatively slight comment at any time in the public press, and nothing at all, as far as we know, has been recently said to advise or warn the public that they are to become operative within the next few days.

"It, therefore, seems to us that a public service will be rendered by your paper if the provisions of the law be drawn to the attention of the community through the medium of your columns. The suggestion of the heading of the enclosure asking that the notice regarding them be made on Monday, August 30, is because we are sending a similar letter to the principal newspapers in this city and in several other cities with like request."

The statement was as follows:

On Wednesday, September 1, two laws take effect which were enacted at the last session of the Legislature. They are called the "anti-joy riding" and anti-tampering" amendments of the Penal Law.

The text of the anti-joy riding law is as follows:

Chapter 514, Laws 1909

Section 1. Chapter eighty-eight of the laws of nineteen hundred and nine, entitled "An Act providing for the punishment of crime, constituting chapter forty of the consolidated laws." is hereby amended by adding thereto, after section twelve hundred and ninety-three thereof, a new section, to be section twelve hundred and ninety-three-a thereof, to read as follows:

Any chauffeur or other person who without the consent of the owner shall take, or cause to be taken from a garage, stable or other building or place an automobile or motor vehicle, and operate or drive, or cause the same to be operated or driven for his own profit, use or purpose, steals the same and is guilty of larceny and shall be punishable accordingly.

Section 2. This act shall take effect September first, nineteen hundred and nine.

The text of the anti-tampering law is as follows:

Chapter 525, Laws 1909

Section 1. Section fourteen hundred and twenty-five of chapter eighty-eight of the laws of nineteen hundred and nine, entitled 30 tuawusiund aut 103 Suipinoid 124 uy,, crime. constituting chapter forty of the consolidated laws," is hereby amended by adding thereto, after sub-division eleven, a new sub-division, to be sub-division eleven-a thereof, to read as follows:

11-a. With intent so to do, damages in any manner an automobile or other motor vehicle: or

Section 2. This act shall take effect September first, nineteen hundred and nine.

Section 1425, amended by the insertion in the same of the foregoing provision, provides that "a person who wilfully" offends against the same "shall be guilty of a misdemeanor."

It is believed that if the above laws are brought to the attention of automobile owners, managers of garages, chauffeurs and the general public at large, that distinct beneficial results will follow.

Atlanta-New York Run Committee Meets

Members of the Rules Committee of the New York Herald-Atlanta Journal good roads reliability contest, to be run from New York to Atlanta next month, met at a dinner at the Hotel Knickerbocker in New York on Wednesday night, September 1, and drafted tentative rules to govern the contest. All of the committee, which is composed of eight well-known motorists. attended, with the exception of Samuel A. Miles, general manager of the National Association of Automobile Manufacturers. They were:

Alfred Reeves, general manager of the American Motor Car Manufac-

turers' Association; R. H. Johnston, advertising manager of the White Company; Coker F. Clarkson, general manager of the Association of Licensed Automobile Manufacturers; Paul Lacroix. general manager of the Renault Freres Company; S. M. Butler, secretary of the Automobile Club of America; Benjamin Briscoe, president of the Maxwell-Briscoe Motor Company; E. R. Hollander, general manager of the Fiat Automobile Company; Major J. S. Cohen, managing editor of the Atlanta Journal, and J. S. Bester, of the New York Herald. The rules and enry blanks will be issued shortly.

Basle in a Renault Wins 24-Hour Race

Profiting by its mistakes of a few weeks before, the Motor Racing Association held its second 24-hour race meeting at the Brighton Beach track, Brooklyn, N. Y., on August 27 and 28, and materially improved its first attempt. Some effort had been made to provide a track suitable for racing, and while it was attended with some success, there was still plenty of room for further improvement. Somewhat better management ruled, but in spite of it and of the partly reconstructed track, the meeting was marked by fatalities, while the big contest, the 24-hour race, was more of a procession than its predecessor, and the distance covered was very much less, the winner, Basle, driving a Renault car, being 122 miles behind the record.

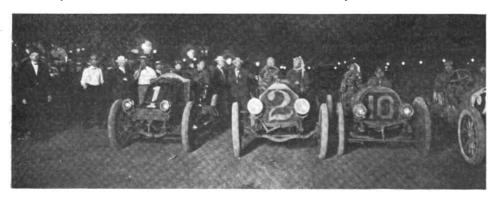
Nor did the six-hour race, put in as a feature event on the first day, prove anything thrilling, or even startling. It was witnessed by a small crowd, proving conclusively that it is the 24-hour race that the spectators want to see, and that accidents merely have the effect of bringing more people to the track. There was the usual outpouring on Friday and Saturday evenings to see the start and finish, respectively, and the accustomed scenes were to be witnessed by those who chose to watch

them. An enormous number of cars were parked in the grounds Friday evening, but comparatively few were on hand for the finish.

The thirty-six hours of automobile racing was commenced at 11.15 on Friday morning, with the running of a one-hour motorcycle race. Nine machines started in this event and the speed made by the little machines as they circled the track was surprising. Walter Goerke, running in second position on the second mile, took a tumble at the farturn, but was uninjured. Remounting his machine he continued and, after a desperate race, overhauled the field. At ten miles he was leading in 10.38 2-5.

From the tenth mile to the finish Goerke had little difficulty keeping his Indian in front, and his time was as follows: 25 miles, 26.21; 35 miles, 36.44 I-5; 50 miles, 52.24. At fifty miles Goerke had a lead of over a mile on his nearest competitor, and when the race was completed he had traveled 55½ miles, while A. C. Chapple, also on an Indian, was three-quarters of a mile behind.

The six-hour race for cars selling for under \$2,500 was the next event to be started, and it proved an uninteresting contest. Five cars went to the line for the start, namely, No. 1, S. P. O.; No. 2,



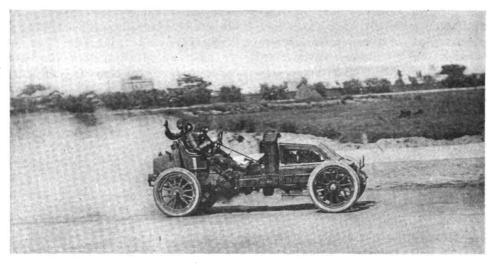
THE START OF THE 24-HOUR RACE AT 10 P. M. FRIDAY

Mitchell; No. 3, S. P. O.; No. 4, Hup-mobile, and No. 5, Allen-Kingston. Adams, in the No. 1 S. P. O., was the quickest at the start, while the A.-K. did not get going until the other cars had covered almost a circuit of the track.

From then on Adams remained in the front, and completed the first ten miles ir. 11.42 3-5. The score at the end of the first hour was: S. P. O., 47 miles; Mitchell, 37 miles; S. P. O., 37 miles; Hupmobile, 43 miles, and Allen-King-

miles; S. P. O., 173 miles; Mitchell, 146 miles, and the A-K, 111 miles.

While the S. P. O. driven by Adams continued its fast pace, the 1200-pound Hupmobile, making its debut in eastern racing circles, circuited the one-mile oval at a steady speed, which won the admiration of the crowd in the huge grand stand. The little car, driven by Fred Woltman, gradually overhauled the leading S. P. O. The latter lost considerable time during the early part of the final hour with tire trouble.



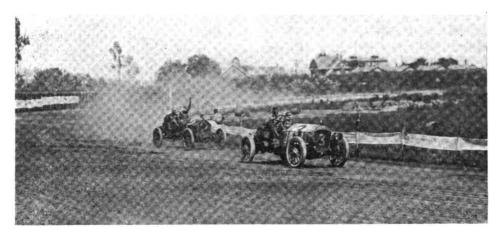
THE WINNING RENAULT

ston, 45 miles. During this hour several of the cars lost considerable time owing to tire trouble.

The rest of the race was a dreary grind, the 2,000 spectators losing all interest in the affair. The S. P. O., driven by Adams, continued to increase its lead, and at the completion of the fourth hour was 32 miles ahead of the Hupmobile. The scores at the end of the fourth hour were: S. P. O., 180 miles; Hupmobile, 148 miles; S. P. O., 136 miles: Mitcheil, 109 miles, and A-K, 90 miles. The scores at the end of the fifth hour were: S. P. O., 220 miles; Hupmobile, 187

Meanwhile the Hupmobile, which was greeted with cheers every time it passed the grand stand, continued on its way, and when the race was finished at 6.30 it was leading its nearest competitor by 14 miles. The score at the end of the sixth hour was: Hupmobile, 226 miles; S. P. O. No. 3, 212 miles; Mitchell, 182 miles; Allen-Kingston, 129 miles. When the No. 1 S. O. P. was disqualified it had traveled 240 miles and still had half an hour to go before the race finished.

The five-mile free-for-all resulted in an exciting finish between Ralph De Palma, in the Fiat Cyclone, and H. J.



A HOT CHASE ON THE BACK STRETCH-NO. 2 P. & S. AFTER NO. 3 ACME

Kilpatrick, in a Hotchkiss. The latter car was an added starter. The race, which was from a flying start, was delayed somewhat through the Green Dragon, driven by R. Gilhooly, going through the fence at the far turn as the cars were flying toward the start.

On the fresh start, which was made

without the Green Dragon, De Palma secured an advantage, the Hotchkiss running second, while the Red Devil, driven by Charles Bowers, was trailing. On the first mile around De Palma was leading by about a fifth of a mile, with the Hotchkiss second and the Red Devil out of the race, having stopped on



A CORNER OF THE PARKING SPACE

the back stretch. De Palma continued to hold the lead, and on the fourth lap flashed across the line about 25 yards in advance of Kilpatrick. Thinking the race was over, the Fiat Cyclone driver slowed up. Kilpatrick, however, kept going at a mile-a-minute speed, and soon opened up a gap between the two cars. De Palma overhauled the Hotchkiss on the backstretch, and as the cars entered the homestretch for the final lap, they were practically on even terms. The Fiat Cyclone gradually drew away from the other car and flashed across the line about 25 yards in advance of the Hotchkiss. De Palma's time was 5 minutes 143-5 seconds, while Kilpatrick's was 5 minutes 16 1-5 seconds.

In an attempt to lower the track record for a mile, which is 52 2-5 seconds, made by Ralph De Palma on October 2 last year, Walter Christie, in his front-drive Christie racer, circled the one-mile oval in 57 4-5 seconds. De Palma also tried to break his own record, and on the first attempt negotiated the track in 57 seconds flat. The second trial was done in 55 1-5 seconds. The three-cornered match race between De Palma, Fiat; Kilpatrick, Hotchkiss, and Walter Christie, Christie, was called off. The summary:

One hour motorcycle race—Won by Walter Goerke (Indian), 55¼ miles; A. C. Chapple (Indian). second, 54½ miles; W. M. Robinson (Merkel), third, 51 miles; F. A. Baker (Indian), fourth, 50 miles.

Six-hour race for stock chassis selling under \$2,500—Won by Hupmobile (Woltman), 226 miles; S. P. O. (Juhasz-Wehr), second. 212 miles; Mitchell (Carruthers), third, 182 miles; Allen-Kingston (Lawell), fourth, 129 miles; S. P. O. (Adams-Batts). disqualified at 240 miles.

Five-mile free-for-all—Won by Fiat Cyclone (De Palma), 5.143-5; Hotchkiss (Klipatrick), second, 4.164-5.

Mile time trials—Christie (Christie), time .57.4-5; Fiat (De Palma), time .551-5.

Immediately after the afternoon programme had been completed laborers

were set to work putting the track in condition for the twice-around-the-clock event, which was scheduled to commence at 10 o'clock. Three-quarters of an hour before that time the cars were allowed to practice. Fifteen minutes before 10 o'clock, Starter Fred Wagner signalled the drivers to line up for the start. The cars, with their drivers and tire equipment, faced the starter:

Stearns, Grosse-Mulford, Continental; Palmer-Singer, Lescault-Howard, Diamond; Acme 3, Patschke-Maynard, Goodrich; Acme 4, Van Tyne-Kayouh, Goodrich; Renault, Basle-Raffalovitch, Michelin; Fiat, De Palma-Parker, Michelin; Rainier, Disbrow-Lund, Michelin; Allen-Kingston, Hughes-Egibi, Michelin; Houpt, Robertson-Poole, Michelin, and, Lozier Heina-Cobe, Michelin.

The two thousand persons who had witnessed the six-hour race, which preceded the main event of the thirty-six hour carnival of racing, had been increasing gradually until, at the time of the start of the twenty-four-hour race more than 15,000 people were gathered around the track. The space in front of the huge grand stand and the commodious paddock in the rear of the grand stand and club house were packed with automobiles of all descriptions. It was estimated that there were about 1,100 cars assembled inside the race track grounds, the largest number ever gathered at an event of this kind.

When Starter Wagner finally said "Go!" the cars shot forward. The Stearns' driver, Grosse, was the first to get started and his machine shot toward the first curve. De Palma in the Fiat was almost as quick, however, and as the cars turned the first corner the Italian car went to the front with the other cars stretched out behind. De Palma held his advantage and crossed the line a leader for the first mile in 1 minute 13 3-5 seconds. The other cars finished the initial mile in the following order:

Sears, Allen-Kingston, Houpt, Acme No. 4, Palmer-Singer, Lozier, Acme No. 3 and Rainier.

The track was in good condition when the race started, the turn out of the back stretch and into the home stretch being widened considerable, while the surface had received several layers of concrete. De Palma was still leading at the fifth mile, which was completed in 5 minutes 34 3-5 seconds. During the third mile the Houpt and Rainier were called off the track to fix their lights, causing them to lose a mile.

Stearns, 52 miles; Palmer-Singer, 46 miles; Lozier, 46 miles; Allen-Kingston, 44 miles, and Houpt, 22 miles. As fifty-five miles subsequently proved to be the most miles made during any one hour of the race, Cyrus Patschke won the special prize of \$200 offered to the driver performing this feat.

The officials were highly elated over the performances of the cars during the initial hour of the race, but their joy was not to be long lived, for it was during the second hour that accidents occurred which resulted in the killing of



THE TRAINING CAMPS.

Near the finish of the first hour Patschke in Acme No. 3 passed his teammate and when the first hour score was taken he was the first to cross the line. During the first hour the cars had equalled the world's record made by Robertson and Lescault in a Simplex on the Brighton Beach track on October 2 and 3, 1908, the leading cars traveling fifty-five miles. The scores at the end of the hour were Acme No. 3, 55 miles; Acme No. 4, 55 miles; Renault, 53 miles; Fiat, 53 miles; Rainier, 52 miles;

Leonard Cole, mechanician on the Stearns, the fatal injury to Laurent Grosse, driver of the same car, and the severe burning of the driver and mecanicien of the Allen-Kingston.

As Hugh Hughes was piloting the Allen-Kingston around the far turn his car threw a shoe. Hughes immediately brought the A.-K. to a standstill. The stop was made so sudden that Ralph De Palma in the Fiat, which was immediately behind, was unable to steer his car out of the way and it crashed

into the car piloted by Hughes. In the collision the gasolene tank on the A.-K. was broken and the fluid scattered over Hughes and his mecanicien. The hot exhaust gases from the Fiat ignited the gasolene and immediately the two men in the Allen Kingston were enveloped in a sheet of flame. Jumping from their car they ran into the infield, where they were rolled about in sand and brush until the flames were extinguished.

The excitement of this accident had not died down when the spectators were brought to their feet with the crash of the fatal Stearns accident. Immediately a rush was made for the spot, but the course was effectually policed by Pinkerton and city policemen, and a more serious accident was averted.

It appears that at about 11:23, three cars, the Acme No. 3 on the pole, the Stearns in the middle and the Renault on the outside, came dashing toward the first turn. The Acme had just come out of the paddock. As they approached the turn the Renault turned as if to go in at the pole on the curve. This forced the Stearns to make a similar move. The Acme, being close to the inside fence was compelled to go straight. About fifty yards from the turn the front wheels of the Stearns locked with the front wheels of the Acme. The Renault driver, seeing what he had caused, steered his car to the right and took the turn wide. The Acme got away from the Stearns.

The latter car went straight for several lengths, then it suddenly turned, as if for the inside fence, and then turned over and bouncing like a rubber ba'l through the air three times, the car broke in two pieces and fell to the track a mass of twisted metal. The body of one of the men was flung about ten feet in the air and landed clear of the wreck, while the other was buried under the debris.

Several of the officials ran out on the track and with red lanterns stopped the other cars, not until after there were some very narrow escapes from collisions. When the crash occurred a number of women among the spectators fainted, while several were led from the grounds suffering with hysteria. The Acme No. 3 had its front axle broken as a result of the collision with the Stearns, but neither the driver, Patschke, or the mecanician were injured, as was at first reported.

Cole was apparently lifeless when picked up and carried to the hospital in the paddock, but the officials at first reported that Grosse was dead and Cole seriously injured with a broken spine. This report was reversed later. Grosse went under an operation at the Kings County Hospital Saturday, but the attempts to save his life were fruitless, and he died on Sunday night.

The following cars were again started in the race after twenty minutes' delay, due to the accident: Rainier, Acme ,, Palmer-Singer, Houpt and Lozier. The Renault soon appeared on the track. Despite the accident of a few minutes previous, the cars remaining in the race continued at the same speed.

The score at the end of the second hour, 11.20, was: Rainier, 100 miles; Lozier, 99 miles; Renault, 97 miles; Acme 4, 90 miles: Palmer-Singer. 87 miles; Houpt, 72 miles; Fiat, 63 miles; Acme 3, 60 miles, and Allen-Kingston, 54 miles. The leader was seven miles behind the world's record and four miles behind the mileage made in the same length of time at the race held in July.

During the early morning hours nothing of an exciting nature occurred. The Rainier held the lead, with the Renault acting as runner-up until the ninth hour, when the French car went to the front. owing to the Rainier's cracking it crankcase and having considerable trouble

with its cylinders. Meanwhile, the Palmer-Singer and Acme 4 were having a tussle to decide third and fourth place. On the sixth hour Acme 4 moved up into third place and stayed there until the eleventh hour, when it went into second place.

The scores at the end of the eighth hour were: Rainier, 382 miles; Renault, 382 miles; Acme 4, 343 miles; Palmer-Singer, 283 miles; Acme 3, 268 miles; Lozier, 226 miles; Allen-Kingston, 220 miles, and Houpt, 155 miles. At the end of the ninth hour the Renault was leading by about twenty-nine miles. with the scores as follows: Renault, 431 miles; Rainier, 402 miles; Acme 4, 386 miles; Palmer-Singer, 295 miles; Acme 3, 294 miles; Lozier, 274 miles; Allen-Kingston, 257 miles, and the Houpt, 168 miles. The record for this hour is 455 miles, made by the Renault last October.

The eleventh hour saw the elimination of another of the contestants. Shortly before 9 o'clock the Lozier, which had been running for four hours with little trouble, was being speeded around the turn into the backstretch by Heina, when the tire on the right front wheel blew up. Before the driver could regain control of the car it had turned around and headed for the fence at the outside of the track. The fast-moving car crashed through the fence as if it had been paper, and was ditched, the driver and mecanicien being buried under the wreck.

It was about this time that the effects of the constant grinding of the heavy cars became noticeable on the surface of the track. The turns had deep ruts, which the drivers avoided by taking the curves wide. Except for the slightly torn up condition of the turns, the track was in fine condition, the stretches being fairly level, while the usual dust was missing.

On the sixteenth hour the Acme 3

had moved into third place, while its team-mate, which was still off the track, moved back a notch. The Renault remained in first place until the end of the race, while the Rainier, although off the track much of the time, remained in second place to the finish.

As the race drew to a close and it was seen that the Renault and Rainier had first and second places practically clinched, interest was taken in the fight for third place between the Acme 3, Allen-Kingston and Acme 4. The car driven by Patschke moved into third place on the sixteenth hour, and remained there until the twenty-second hour, when it only made eleven miles, while the Allen-Kingston made fortyfive and moved into third place. scores at the end of the twenty-second hour were: Renault, 995 miles; Rainier, 858 miles; Allen-Kingston, 786 miles; Acme 3, 785 miles; Palmer-Singer, 779 miles; Acme 4, 721 miles. At this hour the leader was ninety-one miles behind the record and twenty-two miles slower than the race of July.

When Starter Wagner flagged the cars for the last lap, the Renault, which appeared to be running perfect, despite a little trouble with the gasolene lead pipe a few minutes before, was in front, and Basle sent the car around the course for the final circuit at a great speed. The race, which was the first continuous twenty-four-hour event held in this country, ended with six of the ten starters in the race, and having the following scores:

Renault, 1,050 miles; Rainier, 938 miles; Acme 3, 883 miles; Palmer-Singer, 870 miles; Allen-Kingston, 866 miles, and Acme 4, 760 miles. This was 122 miles behind the record made by Robertson and Lescault in a Simplex on October 2-3 last year, and 41 slower than the mark made by Robertson and Poole in a Simplex in the July race.

Curtiss Wins Chief Honors at Rheims

A lone American aeronaut journeyed to Rheims for the big "Week of Aviation," which the French city had been planning so long, and there met the world's most famous aviators — the Wright brothers excepted. When the week came to an end this American, Glenn H. Curtiss, had captured the premier event—the International Cup and the special speed race, as well as performing most meritoriously during the entire week. His victory was no easy one, however, his win of the International Cup being accomplished by a very narrow margin over Bleriot. Latham fell the honor of reaching the highest altitude, for which feat he received the altitude prize. The meeting was a most successful one, and attracted an immense number of spectators.

In last week's issue of Automobile Topics an account was given of the happenings at Rheims up to the fourth day of the meet, Wednesday, August On the following day Hubert Latham, the French aviator who made two unsuccessful attempts to fly across the English Channel, broke the spell of hard luck under which he had been piloting the Antoinette monoplanes, and established a new record for speed and distance. On a second flight he flew over fifteen times around the track, a distance of 154.62 kilometers, or more than 961/2 miles, and covered the distance in 2 hours and 18 minutes. Like Paulhan, on the previous day, Latham was compelled to descend on account of the gasolene supply becoming exhausted.

Latham's record flight was made under spectacular conditions, not another machine being in the air about the course while the flight was being made. Before noon Latham flew seven rounds of the course, but was compelled to descend through the slackening of one of the wire stays of his machine. At thirteen minutes after two in the afternoon he took out a larger Antoinette machine, in which a new 60 hp. motor had been installed.

According to the official announcement a six to eleven miles an hour wind was blowing when Latham started his long flight, but the French aviator had been in the air but a few minutes when the wind's velocity was increased from fifteen to twenty miles an hour. During the sixth and seventh rounds, when the wind increased again, Latham mounted higher in the air. Soon rain began to fall, but the aviator continued to fly through the thick mist. With the rain the wind decreased. Latham had no more difficulty with the machine and did not descend until the gasolene supply gave out at 4.31. Latham's fastest rounds were the eighth and tenth, when he completed the course in 8 minutes and 20 seconds, while the slowest round was the second, when he took 9 minutes and 29 seconds to negotiate the 61-5 mile course.

Nothing else sensational happened during the day, Glenn Curtiss limiting himself to three rounds of the course and Count de Lambert in a Wright machine making a flight of seventy-two miles in I hour 50 minutes.

Friday was the last day allowed those competing for the Prix de la Champagne, and Farman, in a biplane, gained the first prize of 50,000 francs, \$10,000. He flew 180 kilometers, about 112 1-2 miles, in 3 hours 4 minutes 56 seconds, breaking the world's time and distance records. His flight ended officially at 7:30, when, in accordance with the rules the official timekeeping ceased, as darkness at this hour made control impossible. After making one more circuit of the field after the official time expired, Farman descended in front of

the grandstand. He was almost paralyzed by the cold and fell rather than stepped from his machine.

Farman's flight was not an impressive Using his own biplane, which differs from the Voisin machine in not having upright divisions between the horizontal planes, he kept at a low elevation-about 25 feet all the time. The flight was started at 4:30, when the wind was reported as blowing at a rate below six miles an hour. While Farman was in the air it suddenly grew cold and many of the spectators donned their overcoats. Every round was made in ten minutes, with varying number of seconds, ranging from I to 52, the average being 17, except the fifth. which took 11 minutes 25 seconds. The best time was 10 minutes 1 second.

A number of aviators made flights and the crowd was kept interested throughout the day. Latham, on a smaller Antoinette covered 59 miles in I hour 39 minuees, incidentally breaking the fifty mile record, do ng ithe distance in I hour II minutes 20 seconds.

Bleriot made rounds on two of his monoplanes. On the smaller he did the distance in 11 minutes 52 1-5 seconds, and on the larger in 8 minutes 82-5 seconds.

In the contest for the Champagne prize Latham was awarded second place, receiving \$5,000. He covered 96½ third prize, \$2,000; Lambert, 72½ miles, fourth \$1,000. Latham covered 69½ miles on his smaller machine, but he did not receive fifth prize, as only one prize was allowed to each pilot. Tissandier, who also covered 69¼ miles, received fifth prize. He also received \$1,000, as did Sommer, with 36 miles to his credit, receiving sixth prize.

On Saturday, August 28, Glenn H. Curtiss won the International Cup of Aviation, the principle prize of the week. Curtiss defeated Bleriot by the

narrow margin of 5 3-5 seconds. In this contest Curtiss covered twenty kilometers, two rounds of the course, or 12.42 miles, in 15 minutes 50 3-5 seconds. Latham and Lefebvre, the other French representatives in the race, finished respectively, in 17 minutes 32 seconds, and 20 minutes 47 3-5 seconds. Several other machines were scheduled to start, but failed to do so within the time limit. Cockburn, an Englishman, ran into a haystack as he was manœuvring for the start and did not cross the line.

Surrounded by a number of enthusiastic Americans Curtiss had his machane taken out shortly after 10 o'clock, and at 10:11 he decided he would make a trial round. Passing the starting line at great speed the American aviator flew around the course at a uniform height, clipping corners sharply and crossing the finish line less than a dozen feet above the ground. When it was announced that he had surpassed Bleriot's record of 8.04 2-5 by 9 1-5 seconds, the Americans cheered wildly.

Immediately after his trial flight Curtiss announced that he would try for the international. His gasolene tank was refilled and he got away in fine style. He rose to a greater height than on his trial flight in order to escape the air currents near the ground. Curtiss' first round was slower by 2 1-5 seconds than his trial, but on the last round he let out his motor to its full speed and came home like a streak. He crossed the finish line in impressive style, and his time for the round was 7.33 1-5. This broke his own world's record made half an hour previously. His total time was 15.50 3-5.

After completing his record trip Curtiss declared it was the roughest one he had ever made. "In front of the tribunes I was going steady," he explained, "but when I got to the back stretch I experienced a most remarkable atmos-

pheric condition. There was no win-1, but the air seemed fairly to boil. My machine pitched, and over the 'graveyard' I was almost thrown out of my seat. The machine once or twice seemed literally to drop from under me. Under ordinary conditions this curious state of the air would have prevented my starting, but after the splendid time I made in my trial, and considering the circumstances, I could not refrain. As a matter of fact, my experience confirms my theory that my machine is faster in turbulent air than in a dead calm."

Bleriot made a trial with his big mechine, but this time was 7 minutes 58 1-5 seconds, which was slower than any of Curtiss' rounds. At 11 o'clock Lefebvre, with a Wright biplane, made an attempt, but the best he could do for the two rounds was 20 minutes 32 2-5 seconds, almost five minutes slower than Curtiss.

Bleriot again crossed the line at 12:30, this time with two blades on his propeller instead of the usual four, but he found he could go no faster than with the four, so the machine was again put in the shed. Bleriot made another start for a trial round at 3 o'clock, but he stopped when half way round. This flight was made with the four-blade propeller replaced. Latham made a trial round during the afternoon, but it took 8 minutes, and his machine was put in its shed again.

The general impression among the spectators was that the time allowed for flights for the International Cup elapsed at 5 o'clock, and when that time approached the excitement among the Frenchmen was intense. At 5 o'clock it was thought that the French aviators had defaulted and a murmur of disapproval arose, but a minute later it was officially announced that the wording of the rule had been misunderstood, and that it allowed a start to be made

any time previous to 5.30 o'clock. A few minutes later Bleriot and Latham crossed the line in quick succession. Bleriot went by the tribunes at a terrific pace, and for a moment the Americans feared lest Curtiss had been beaten. He finished the first round almost in the identical time of Curtiss' fastest lap, covering the ten kilometers in 7 minutes 53 3-5 seconds, but his speed seemed appreciably to decrease the last round, and before he reached the final turn the stop watches showed that he had lost.

The judges immediately ran up the American flag on the signal pole on the timekeepers' stand in front of the tribunes, and the bands played the "The Star-Spangled Banner." There was great rejoicing among the American spectators.

Ambassador Henry White, accompanied by Mrs. Theodore Roosevelt, Miss Ethel Roosevelt, Quentin and Archie, had arrived in time to witness the flights by Bleriot and Latham from a special box placed at the disposal of the party.

Later in the day Bleriot clipped 5 2-5 seconds off Curtiss' fastest round in the international, in a ten kilometer flight in the lap speed contest, making the distance in 7 minutes 47 4-5 seconds, which is a world's record. Lefebvre and Farman were the only aviators to appear in the passenger carrying contest. The former covered a lap with one passenger in 9 minutes 52 4-5 seconds, and two passengers in 10 minutes 30 seconds.

Hubert Lathan protested Henry Farman's victory in the endurance flight on the double ground that he entered with a Vivinus motor, but substituted a Gnome motor and that he violated Article 8 of the regulations, which provides that all material employed on the grounds be approved by the committee August 22, two days before the con-

tests opened. The Gnome motor arrived on the grounds Thursday of this week. The committee rendered a decision favorable to Farman when the Englishman produced written authorization from three members of the Sportive Committee to use the Gnome motor.

The week of aviation came to a conclusion on Sunday, August 29, with the altitude contest the feature of the day. Latham proved the winner of this event, when he soared to a height of more than 505 feet. Farman was second, reaching a height of nearly 300 feet.

After two attempts Glenn Curtiss won the special speed prize of \$2,000. In his first attempt his time after penalization was 20 minues 112-5 seconds for the three circuits of the course. This was the best time up to date, but Latham decided to make another attempt and succeeded in covering the ten miles in 26 minutes 33 1-5 seconds after being penalized. In his second attempt at 5:28, Curtiss, after the penalization was removed, covered the circuit in 25 minutes 40 seconds. This time was not attacked, and consequently he won the 10,000 franc prize. Latham took second prize, \$1,000; Tissandier, third. \$60; and Lambert, fourth \$400. Curtiss made an unsuccessful attempt to lower Berliot's record for one lap.

Bleriot met with an accident earlier in the morning which resulted in his most powerful machine being practically destroyed. While making a flight the engine suddenly stopped and his machine crashed to the ground. The overheated engine smashed and everything that could be burned was soon reduced to ashes. Although he fell 60 feet, the plucky French aviator only received slight injuries.

Between 1:30 and 7 o'clock on the last day, no less than sixty-six aeroplanes passed and repassed before the grand stand. A young man whose father presented him with an aeroplane for winning his law degree, learned to fly during the week and he covered seven laps in I hour 50 minues.

During the last day the committee issued decisions on the various points which had been laid before them. One is interesting, as it is the first recorded case of an aeroplanist accusing a dirigible balloon of obstruction. The pilot of the balloon was fined. The first protest was that of Curtiss against being penalized 10 per cent. The committee unanimously rejected this on the ground that Curtiss would have been allowed to start Tuesday without penalty, although he did not start Sunday, but not having started Tuesday, he again came under the ordinary rules.

Delagrange protested that the Zodiac's crossing the track on Tuesday obstructed him. The protest was rejected on the ground that the track was so wide that the Zodiac only occupied one-fifth of it. Nevertheless the Zodiac's pilot was fined 100 francs (\$20) for neglecting an order to wait some minutes before crossing the track. His defence was that the balloon was not under control.

Pelletier Moves Up

E. LeRoy Pelletier, formerly advertising manager of the Everitt-Metzger-Flanders Company, of Detroit, has been apupointed general advertising manager of Studebaker Automobile Co., and Studebaker Bros. Mfg. Co., with head-quarters at South Bend, Ind. In his new capacity Mr. Pelletier will have full control of all advertising of Studebaker horse-drawn vehicles and the full line of automobiles handled by the Studebaker Company.

The Minneapolis branch of Morgan & Wright is now located in new and more commodious quarters, at 911 First Avenue, S.

Lowell's Speed Carnival Promises Well

The first big automobile road race to be held in the East this year will be run over the Merrimac Valley Course, at Lowell, Mass., on September 8, when about sixteen high-powered cars will compete in the second annual Lowell stock chassis race. The automobile carnival will commence on Monday with a sweepstakes for small cars. On Tuesday a number of one-mile straightaway races will be held, in which a score or more of stock cars and specially built racers will participate.

In all, it is expected that forty cars will take part in the three-day carnival. In the sweepstakes event for light cars on Labor Day, September 6, twenty-two cars will be started. On the final day of racing, September 8, when the main event of the week will be run, sixteen cars are expected to start in the heavy car race. The entry list has been announced as follows:

Heavy Car Race, September 8.—Open to stock chassis of 451 to and including 600 cubis inches piston displacement; minimum weight, 2,400 pounds; distance 318 miles—Alco, H. F. Grant; Stoddard-Dayton, Bert Miller; Stoddard-Dayton, B. W. Shaw; Knox, driver not named; Knox, Fred Belcher; Knox, A. E. Denison; Apperson Jack Rabbit, Herbert Lytle; Lozier, driver not named; Isotta-Frachini, Al Poole; Allen-Kingston. Hugh Hughes; Buick, Robert Burman; Buick, Louis Cheyrolet; Buick, Lewis Strang; Fiat, Ralph De Palma; Fiat, E. H. Parker; Renault, H. A. De Vaux; Simplex, George Robertson.

Light Cars Sweepstakes, September 6.—Class 2. Vesper Club trophy; for cars of 301 and including 450 cubic inches piston displacement; minimum weight, 2,100 pounds; distance 212 miles—Chalmers-Detroit, L. B. Lorimer; Chalmers Detroit, Bert Dingley; Stoddard-Dayton, B. W.; Shaw; Stoddard Dayton, Bert Miller; Benz, Ernest Stocker; Knox, driver not named; Knox, Fred Belcher; Acme, driver not named; Buick, Louis Chevrolet; Buick, Robert Burman; Renault, Charles Basle.

Class 3.—Yorick Club trophy, for cars 231 to and including 300 cubic inches pis-

ton displacement; minimum weight, 1,800 pounds; distance 159 miles.—Columbia, J. J. Coffey; Atlas, driver not named; Moon, F. J. Davis or James Roxford; Buick, Lewis Strang; Buick, Geo. DeWitt.

Class 4.—Merrimac Valley trophy, for cars of 161 to and including 230 cubic inches piston displacement; minimum weight, 1,500 pounds; distance, 127.2 miles—Chalmors-Detroit, driver not named; Maxwell, Arthur See; Maxwell, William



PRESIDENT JOHN F. HEINZE, OF THE LOWELL AUTOMOBILE CLUB

Sickinger; Maxwell, driver not named; Chalmers-Detroit, William Knipper; Chalmers-Detroit, Joe Matson; Buick. J. B. Ryall; Buick, Arthur Chevrolet.

Lowell has already commenced to take on a carnival appearance, the houses and stores being decorated and an unusually large number of strangers being in the city. Motorists from all over this section of the country will make the Textile City their headquarters during the three days of racing. On Saturday, September 4, too late for



WORKING ON THE COURSE AND A GLIMPSE OF THE GRAND STAND

this issue of AUTOMOBILE TOPICS, the regular monthly meeting of the American Automobile Association will be held at the club rooms of the Lowell Automobile Club, Richardson Hotel. The A. A. A. officials and members of the Executive Committee and Contest Board will be the guests of the Lowell Automobile Club at the banquet to be

given on Saturday evening. George C. Diehl, of Buffalo, chairman of the National Convention Committee, which is in charge of the second annual National Good Roads Convention, to be held at Cleveland, O., September 21-23, has called a meeting of the committee, to be held at the same place on Saturday at 2 P. M.



ROLLER SMOOTHING THE ROAD AT FOOT OF HILL

The roads which constitute the Merrimac Valley circuit were declared in condition for practice early this week, and many of the drivers tried their racers out. Last week ten sprinkling carts were set to work spreading thick oil over the roads. On Monday afternoon calcium sulphate was put on the back roads to harden them. The grand stands are all completed, and they constitute an imposing sight, and far ahead of those erected last year. Under the stands is a promenade 990 feet long. From this run twelve emergency exits. Also from the boxes in front are an equal number of exits.

Herbert Lytle, who will drive the Apperson Jack Rabbit in the national stock chassis race, as well as in three of the straightaway events, gave the course a thorough try-out during the practice hours of 4:30 to 7:30 o'clock on the morning of Wednesday and had the following to say after his splint.

"I think the course is very picturesque and safe. The scenery is beautiful and though the back road was rather heavy when I went over it this morning, I have no doubt but that it will be fixed up in good shape before the time of the race. Of course, there are some bad spots, I mean turns where a driver can encounter trouble; but if he uses care and judgment there is no reason

why there should be an accident. The dip at Williams' farm is easy. I have heard it said that it was a tough proposition to negotiate, but even with the heavy road, this morning I negotiated it at sixty miles an hour, and will travel over the place faster in the race.

"The hairpin is the easiest hairpin that I ever made. It is a bad point and I understand is better than last year; but none of the drivers should be disturbed in rounding it. The boulevard proper is certainly fine, and there is no reason why the cars should not be let out to their limit on the stretch from Dunbar avenue to the turn at Tyngsboro. In fact, the speedway is the best strip of road that I have ever encountered."

During practice on Tuesday Joe Matson, driving a Chalmers-Detroit, struck a man while his machine was going at high speed. The man suffered a compound fracture of the skull and died later in the day. Matson was not held by the police, not being deemed responsible for the accident.

The novel scheme used to sell tickets for the races is resulting in excellent returns, thousands of them being soid. The directors of the Lowell Automobile Club have decided to reduce the price of grand stand seats from \$3 to \$2. These seats will be good for all three days.

Show Places at Atlanta to Cost Little

Spaces at the Atlanta (Ga.) National Automobile Show, which is to be held November 6 to 13 at the Auditorium Armory, may be procured at a cost of 50c. per square foot, this sum including equipment.

The Auditorium Armory, where the exhibition will be held, is one of the largest exhibitions buildings in the South. During the automobile show the new automobile track now being constructed will be opened, together with

endurance contests through the various sections of Georgia, with prizes for the best stretches of road.

By the removal of various partitions the management will have at its disposal 65,000 square feet of floor space. Applications to be considered in the first allotment, must be received at the head-quarters of the National Association of Automobile Manufacturers, 7 East 42:1 Street, New York, by Saturday, September 4, 1909.

Fixing Responsibility for Indianapolis Fatalities

That the track was responsible for the lamentable accidents which marked the opening of the Indianapolis Motor Speedway, and that the management was culpable in opening the Motordrome prematurely, is the conclusion reached by Coroner John J. Blackwell, of Indianapolis, who has been conducting an inquiry into the cause of the death of the five persons who were fatally injured. Not content with asserting that the races were run before the track was completed, the coroner expresses the opinion that sufficient protection was not provided for the spectators and that there was no discipline among the soldiers and guards. verdict was as follows:

I, John J. Blackwell, coroner of Marion County, having examined all the witnesses and heard all the testimony in the cases of the death of Harry Holcomb and William Bourque, who came to their end on the 19th day of August, 1909, on the race track owned by the Indianapolis Motor Speedway Company, from an automobile accident, find said accident was caused, first, by the race course not being in condition, and, secondly, that the machine swerved into an open ditch, twenty inches wide and two feet deep, that was open for the reception of tiling to drain the low graund. This ditch was on the very edge of the track, and as soon as the machine struck the ditch it went to pieces, turned turtle and killed Harry Holcomb and William Bourque.

I find by my investigation that the roadway was not in condition for fast racing by automobiles; the broken stone that was placed on parts of the roadway and, especially for 200 feet where Harry Holcomb and William Bourque met their deaths, was put on only a few days before, and was not properly rolled or tamped. There was a coating of asphaltum placed on top of the broken stones in order to try to cement the stones together. But after the machines had been working on the track for a short time. I noticed that the stones worked up through, and it demonstrated to me that there was no foundation for this roadway and the hard usage and test it was to be put to.

I am further satisfied that if this open ditch had not been in the position and place in which it was the two men could have ridden their machine and stuck to the track. As it was, they did not have one chance for their lives after they struck the ditch. I examined the machine and found it apparently in good condition, excepting where it was knocked to pieces when it struck the ditch.

It is clear to my mind that the Indianapolis Motor Speedway Co. knew there was going to be loss of life and limb. The surroundings indicated everything of this kind. They were prepared with a hospital, ambulance forces and every convenience to take care of the dead and dying. Therefore, from the evidence here shown and testimony taken, I hold the officers and manager of the Indianapolis Motor Speedway Company responsible for the deaths of Harry Holcomb and William Bourque. and when the grand jury holds its next session will recommend an investigation of the whole affair.

Since the accident, the management has arranged to place a five-inch coat of bitu-material on the course and to provide more ballast at the turns. The rules for long events will also be changed to provide for a change of drivers and tires each 100 miles and for a careful inspection of cars at each stop and a physical examination of drivers.

That racing, as at present conducted, is dangerous and to be shunned, is the conclusion reached by one concern whose cars participated in the Indianapolis events. The Stoddard-Dayton Co. last week sent out the following letter:

We have decided, after careful consideration, to abandon automobile racing entirely for the present, or until such time as the conditions generally governing automobile racing are so changed and bettered as to remove to the greatest extent possible, the present dangers, both to spectators and to drivers and mecaniciens operating the cars.

We believe that automobile contests, as now conducted, whether on tracks, roads or hills, are extremely hazardous. We further believe that they are a detriment to the industry, in that they present, in an exaggerated form, the dangers attending the use of automobiles when operated at

more than a normal speed.

Racing, as it exists to-day, tells the public nothing, as the cars that are used are, almost without exception, especially geared and, in many instances, specially constructed to attain the high speeds necessary to win a contest.

Rather than endanger the lives of our men, therefore, and rather than take the chance of injuring spectators, we have decided, as stated above, to withdraw entirely from all such contests in the future.

The A. A. A. has also bestirred itself, as will be seen by the following statement, which was sent out by the secretary's office:

"That the A. A. A. Contest Rules will be changed for 1910 to meet just such racing conditions as prevail on a circular track like the new Indianapolis Motor Speedway, was the decision prompt-

ly arrived at by Chairman Frank B. Hower and Samuel B. Stevens, of the Committee, both of whom went to Indianapolis for the express purpose of seeing just how the existing rules would conform to racing on that track. The committee realized at once that it was utterly impracticable to hold so-called road races over a specially prepared track, even though it were a few miles in circuit. The nervous tension on the drivers is too great, to say nothing of other posible dangers. As a result of their investigation and apart from the deplorable accidents that marred the Indianapolis meet, Mr. Hower has already made several informal suggestions to the committee, and modified rules for long-distance track races will be thoroughly discussed before any similar contests are held."

Twin Cities Have a "Little Glidden"

"The Little Glidden," the first automobile reliability run of the Minneapolis State Automobile Association, started from the Twin Cities on the morning of August 27, with sixteen competing cars and six non-contestants. The principal trophy for which the cars are competing is the *Dispatch* Cup, while three other prizes will be awarded to drivers of cars finishing the four days' run with the best scores.

The cars were started at one minute intervals, commencing at 7 o'clock, by H. K. Harrison. Among the tourists were many women. The noon controls and night stops on the four days were as follows: Friday, St. Cloud and Alexandria; Saturday, Fergus Falls and Fargo; Sunday, stay over at Fargo; Monday, Wheaton and Benson; Tuesday, Litchfield and Twin Cities.

The following were the cars and entrants:

Pierce-Arrow, Renban Warner, Jr.; Packard, H. J. Clark; Haynes, Burnew Bird; Cadillac, Rud Stenerud; Franklin, Theodore Wetmore; Apperson, Bazille Auto Co.; Glide, F. M. Joyce; Chalmers-Detroit; Oldsmobile, F. E. Murphy; Lexington, Harvey S. Haynes; Chalmers-Detroit, Stanley Johnson; Ford. George Doerr; Ford, A. A. Hansen; Brush, D. W. Kemp; and Hupmobile, F. W. Starr.

The competing cars are divided into the following classes.—Class A, cars listed at \$3,751 and over; Class B, cars listed at \$2,451 to \$3,750; Class C, cars listed at \$1,751 to \$2,450, inclusive; Class D, cars listed at \$1,000 to \$1.750, inclusive, and Class E, cars listed at \$999 and under.

Detour on Albany-Pittsfield Route

Secretary Martin, of the Albany (N. Y.) Automobile Club, advises A. A. A. tourists going from Albany to Pittsfield or vice versa of a detour necessary from the village of East Schodac to Nassau, a distance of 5½ miles, due to reconstruction of the road. The Albany Automobile Club has erected signs showing a serviceable route around this section, which is now closed.

Test of Headlights by Royal A. C.

With characteristic thoroughness, the Royal Automobile Club's test of headlights has been described in a report just made public. The test had been projected for some time and was carried out in July last. It was designed to cover the entire subject of automobile headlights, and special reference was had with respect to the dazzling effect of these lights, which has been so much complained of by the public.

The causes of this dazzling and the means of minimizing or eradicating it entirely were gone into and studied with great care. As a result the committee which had the test in charge makes certain recommendations with respect to the height from the ground at which headlights should be placed. It finds that two positions give the best results: One of these is two feet from the ground, while the other is 7 feet 6 inches. The report in full follows:

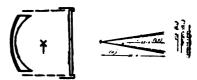
The committee of the club, having been requested by the Local Government Board to investigate and report upon headlights used upon motor vehicles, instructed the Expert and Technical Committee to carry out the necessary tests.

Prior to the decision to carry out these tests the club had been inquiring into the causes which contribute to the unpopularity of motor cars with a certain section of the public, and, among other matters, had given attention to the objection raised against the use of dazzling headlights carried on some motor cars and motorcycles. It is recognized that the way that many of these headlights are used is a source of annoyance to other users of the highway on account of their dazzling effect.

The club was of opinion that this effect could be minimized, and at the same time sufficient illumination of the road in front of the driver of a motor car or

a motorcycle be provided, if the beam of the lamp were arranged or controlled to better advantage.

The club was aware that many lamp manufacturers had already directed their attention to this matter, and that some of them had produced lamps with this object in view. While it was considered that the universal employment of back and front lamps on all vehicles, horse-drawn or otherwise, would be an effective way of reducing the demand for headlights of high power, it was hoped that the tests would bring out the necessary points to be considered in the building of a successful lamp. This hope has been justified, as will be seen by the following:



OFFICIAL DIAGRAM SHOWING BEAMS
FROM A SOLAR LAMP

- 1. The judges are pleased to report that the principal lamp makers responded to the invitation of the club to submit their productions for the tests, which were of a searching nature, and were so arranged as to demonstrate the optical properties of the lamps. Thanks to this co-operation, a thorough investigation was possible, and the tests proved that the dazzling effect of headlights could be minimized, while at the same time sufficient light could be provided.
- 2. The entry list was fully up to expectations, the firms engaged numbered 21, and the number of entries was 47. Of these 33 were acetylene, 12 electric, 1 petroleum and 1 petrol-oxygen.
- 3. The entrant was invited to set his lamp to the best advantage in every respect, both the height and the angle of elevation being left to his discretion,

and not was made of the height of each lamp above the ground (Table, column f).

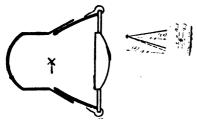
- 4. The records referred to in the following paragraphs were taken in respect of each lamp, and the table shows in summarized form the certificates of performance issued in each case to the entrant. The beam diagrams and the optical diagram sketches and photographs also appear upon the certificates.
- 5. Range (Table, column g).—The distance at which the lamp gives a certain standard illumination (one-tenth of a candle-foot), was measured down a line along which the entrant had centered the beam of the lamp.
- 6 The Horizonal and Dispersion of Beam (Table, columns h_1 and h_2).— The width of the beam over which the illumination of the headlamp was not less than the standard was measured at half the above range, firstly, at 3 ft above the ground, and secondly, at the eye level, assumed for the purpose of this test to be 4 ft. 6 in. from the ground. The width of the beam at 3 ft. above the ground was taken, because a maximum of illumination obtained at this level is useful to the driver and does not cause trouble from glare.
- 7. The standard of light upon which the photometric measurements were based was the same for all lamps, viz., one-tenth of a candle-foot; that is, the illumination received upon surface I ft. from a source of light measuring one-tenth of a candle-power.
- 8. The judges adopted this standard as giving a range at which details could be distinguished, but it should be remembered that the useful range of the lamps, i. e., that at which objects can be seen, is often substantially greater than that given in column g of the table. The full effective range depends upon the nature of the object, e. g., its size and color contrast.

- 9. The Dazzling Effect (Table, column k).—The distance in front of the lamp at which an observer could distinguish an object placed 6 ft. to the side of, and 6 ft. beyond, the lamp, was measured. The object chosen was such that it could be discerned on a starlit, moonless, clear night at a distance of 100 ft. in the absence of any headlight.
- 10. Back Reflection (Table, column m).—The term back reflection is used to denote the stray light thrown out rearwardly. Such stray light interferes seriously with the vision of the driver, and thereby operates to diminish the effectiveness of the lamp.
- 11. Prior to the tests the naked candle-power of the burners and bulbs was officially measured. These results and the corresponding consumption figures are shown in columns a and b of the table.
- 12. For the sake of facilitating reference, the acetylene and electric lamps have been arranged according to their candle-power, and the details of one lamp, the petrol-oxygen, which is a type of limelight, have been set out separately.
- 13. Design and General Construction (Table, column 1).—The lamps remained in possession of the club after the tests, in order that the design and general construction might be investigated; at the same time, sketches were made of the optical arrangements of the lamps.
- 14. Under the heading of simplicity of design and general construction, the judges attach importance to the following points: Weight for size, ease of cleaning, absence of liability to rattle, fewness of parts, quality of hinges, clasp, supporting sockets, etc., and general method of assembling the lamp. Many of the lamps examined showed

that entrants had paid considerable attion to these points.

DEDUCTIONS CONCERNING SIZE AND CANDLE-POWER

15. The measurement of the candle-powers of the cources of light has brought out the fact that the generally accepted idea of the intense candle-power of headlights is erroneous. The naked light of a headlight such as is usually employed is from 15 to 25 candle-power, and this light is collected and directed by lenses and mirrors. Thus, the table, column a, shows only two acetylene burners which exceeded 30



BEAM FROM A WYNCOTT LAMP

candle-power, while in the case of electric lamps the number was the same.

16. In the opinion of the judges, so long as the optical arrangements of the lamps are efficient, ample illumination is afforded by about 20 candle-power, which can be obtained in the case of an acetylene lamp with a consumption of about 7 cu. ft. of gas per hour (about 2.8 oz. of calcium carbide), and in the case of an electric lamp, with a consumption of about 21 watts.

17. It is to be noted that the larger the mirror and the samller the source of light, the easier it is to avoid undesired dispersion of the beam. Accordingly, when considering the advantage of a lightweight lamp, the importance of the size of the mirror must not be overlooked. The weight of all lamps is given in the table, column e. The lamps marked thare self-contained, and were weighed with the generator empty.

- 18. For the purpose of the tests the relation of both pressure and consumption of gas to candle-power was investigated.
- 19. From these experiments it will be observed that the candle-power of an acetylene burner varies but little between the pressures of 3 ins. and 6 ins. of water, but the consumption rises to an important degree. In the opinion of the judges, lamps and burners as now constructed require no pressure higher than 4 ins., and the most economical pressure is 3 ins. of water. Increasing the size of the burner has small effect upon the range, unless the optical system is altered proportionately. Increasing the size of the burner tends to increase the width of beam, and in some cases the glare.
- 20. The effect of variations of voltage on electric lamps depends upon the substance of which the filament is made. The increase of light resulting from an increase of voltage in the case of metallic and carbon filaments is shown in the following table. For example, a 5 per cent. increase of voltage gives approximately a 31 per cent. increase of light in the case of a carbon filament lamp, and 23 per cent. in the case of one with a metallic filament.
- 21. In certain cases the electric lamps were somewhat overrun, and if this practice became general it would lead to objectionable results, on account of the blackening of the bulbs and permanent breakage of filaments. The candle-power of the electric lamps shown in the table, column a, corresponds to the voltage at which the lamps were actually run during the tests.

HEIGHT FROM GROUND AND INCLINATION

22. A series of experiments were carried out to ascertain the effect on dazzle of varying the vertical angle of projection of the beam and the height of the lamp itself from the ground.

TABLE GIVING SUMMARY OF RESULTS OBTAINED

		2	6	,	C	ď			f	8	h		ho	- 1	Ŀ	1	m
		er of	sun	np- on.		front lamp.			nou de		b	eam	h of at nge.		ceased, at m ground.	design ction.	
No.	Name of Entrant.	Candle - power naked light.	Cubic feet per hour.	Watts.	Pressure.*	Diameter of	Weight.	17 17 11	ground.	Range.	At 3 ft. from	ground.	At 4 ft. 6 in.	prin	Distance from which dazzle ce 4 ft. 6 in. from	Remarks on design and construction.	Remarks on back reflection , (stray light thrown out rearwardly).
	Vandervell and Co Badger Brass Mfg, Co	3'9		*4	8°2			oz. ft 1 3 7 2			ft. 8 8	in. 6 7		n. 6	ft. 22 26	Good Very good	No stray light. Light issued round rim of front; als reflections from the body of the lamp
	Wyncott and Son	4.8		araff		61		83			7	0		10	15	Fair	No stray light.
85	Vandervell and Co A. Dunhill, Ltd.	5.0		3'9	4.5	43 61	++13	123	I	78 69	7 7	3		3	29 35	Good	"
**	Do. (without screen)	,,	. 11	-		**			**	93	9	5	9	9	30	,,	" -
	S. Smith and Son, Ltd.	11.3			-	71	++13	1	10	81	5			0	37	"	Light was visible through a row of holes partially hidden by the top of the generator.
₹8 ‡8	Rushmore Lamps, Ltd. S. Smith and Son, Ltd.	13.2			=	61 61	7 ††12	132	10	87 64½	8	5	7	8	31 41		No stray light. Light was visible through a row of holes partially hidden by the top, the generator.
9	Rotax Motor Access. Co.	13.8	.69	-	-	68	++11	02	61	671	10	11	13	I	21	Good	Light issued from two ventilating hole in the cowl and from the rim of from of lamp.
10	C. H. Gentry	16.5		16.8			4	52	58		5	5	4	8	12	Very good	No stray light.
	Do. (1 voltage) Weill Bros	7.5	.66	8.3	4.5	61	tt9	82	"8	78	10	3	8	9	21	Fair	A very slight amount of light was visib from a row of small holes.
	Weill Bros	17.8		-	-	58	3	52	71	431	13	5	13	3	21	,,	A small amount of light issued fro the ventilating holes.
	Vandervell and Co	18.9			12.4	65	8	23			26		25	6	7	Good	No stray light.
15	Rushmore Lamps, Ltd. Rotax Motor Access. Co.	10.5	1	21'4	12.1	61 64		132		942	14		13	3	27 5	very good	A very slight amount of light was visib from the rim of front of lamp. No stray light.
. 11	Do. (2nd filament)	5.9	-	-	4'0	,,		,	,,	57	3	4	3	6	30	21	"
17	Salsbury Lamps, Ltd Sylverlyte, Ltd	20.8		21.0	14'1	7½ 4¾		103		84 851	13	10		0	35	Fair	Practically no stray light. No stray light.
18	Salsbury Lamps, Ltd	20.8	.72		-	78	8	132	43		18	0		0	27	Very good	A small amount of light was visib
‡19	Reflector Synd., Ltd	22.5	.79	-	-	7 1	12	4 2	81	971	12	7	11	4	36	Fair	through a row of small holes Slight amount of light issued from hol on the top.
120	Rushmore Lamps, Ltd.	22.7	.83	_	-	71	11	32	4	75	8	7	5	5	29	Good	No stray light.
	Do. (half eclipsed) Badger Brass Mfg. Co	23.6	.80	-	-	"	,,		101	27				0	33	Fair	Light issued from ventilating holes in the
	Wyncott and Son	24.2	1			9 64		62		69		9		9	30	Fair	cowl, and from a row of holes on the to A small amount of light issued from t
23	Weill Bros	25.0		_	_	SI		3 2		971	11	9		7	29	Good	ventilating holes. Very slight amount of light issued from
24	Weill Bros	25.6	.85	-	_	88	9	62	8	93	9	11	10	2	27	Good .	holes on the top. A large amount of light issued through
25	Bleriot, Ltd	26.0	-81	-	-	9#	16	10	10	132	21	6	19	2	27	Fair	a long narrow aperture. A considerable amount of light issue from the top.
26	Worsnop and Co., Ltd.	26:2	.01	-	-	84	12	22	6	54	18	11	15	6	12	Fair	A very slight amount of light was a flected from holes on the edge of from
27	Motor Access. Co.	26.3	.81	-	-	7 1	12	5 2	4	75	13	9	12	2	6	Good	A bright light issued from the ven lating holes.
28	Howes and Burley, Ltd. Brown Bros., Ltd.	28.7	95	-	=	7½ 9½	7 16	03	I IO	78 187½	†21 22	3	4 22	3	7 7	Good Fair	No stray light. Light issued from two ventilating hol
		3	33			/1		7									in the cowl.
	Do. (eclipsed) Vandervell and Co	33.0	1.5	22.3	12:4	77.7	6	142	" 8	160	10		16 1 20 1		7	Good	No stray light.
31	W. Tweer and Co	37.7	1.07	- 3	- 4	7± 7± 7±	8	03		93	16	7	16	8	11	Good	Light issued from round cowl, and the
				10			-									15. 1	were reflections towards the wings.
3	Blériot, Ltd	76.9		68.3		93	12	81		168	20		17	3	30	Fair	No stray light.
		11		7.5	7.1	9.9	7.7		* *	410	- 5	1	- 3		1	. 11	11

he was no longer dazzled—a similar set of observations to those shown in the table, column k.

24. This table shows that the least (Continued on page 1500)



^{*} In the case of the acetylene burners, the candle-power (a) and consumption (b) correspond to a pressure of 3 in, of water.

† This width was broken by two small patches where the intensity of the light did not quite reach the standard. (See beam diagram.)

2 Nos. 0, 8, and 10.—Fitted with gold-plated reflector.

Nos. 25 and 32.—Fitted with fixed, blackened, horizontal slats behind front glass.

^{23.} The figures given in the table represent in general the results of the tests made. The figures in feet in the different columns are the distances of the observer from the lamp at which

s No. 5.—Fitted with flat, blackened, circular slats behind front glass.

* No. 20.—Fitted with flat, blackened, circular slats behind front glass, movable by hand.

** No. 16.—Fitted with front lens cut horizontal yinto a large number of sections, the adjoining faces of which are frosted.

†† These lamps are self-contained; the weight therefore includes that of the generator.

PREVENTIVES AND REMEDIES

Motorists who are interested in making experiments entailing accurate measurements of gasolene consumption must often have experienced the difficulty of gauging the quantity of gasolene in the tank. An

> ordinary sounding rod is notoriously unreliable, as whenever the surface of the rod becomes moist or greasy the gasolene will creep up the rod and show too high a reading, or it will fail to mark the rod high enough. Glass or celluloid tube gauges working on the principle of the pipette are also doubtful. If the bore of the tube is small capil-B lary action makes the reading too high, whereas in a larger bore tube the column of gasoe lene sinks until balanced by atmospheric pressure, and the resulting reading is too slow.

The gauge as shown in the illustration, is accurate and sensitive to 1-16 in. of rise or fall of level in the gasolene tank, and in the average two-seated car this would be equivalent to one-tenth of a gallon.

The gauge consists of a length of glass tube 3/4 in. internal diameter and 3 in. longer than twice the depth of the tank. Into the lower end of the tube is pressed a cork 3/8 in. thick, having a hole through it about 1/4 in. or 3/8 in. diameter. A groove is cut transversely across the end of the cork and the glass tube with a triangular file to allow the gasolene free access when the end of the glass tube is resting on the bottom of the gasolene tank. The indicator consists of a cylinder of good,

sound cork 2 in. long and ½ in. diameter. Pushed into one end of the cork cylinder is a light steel wire having soldered to the upper end a disc of thinnest stencil sheet brass. The wire is made sufficiently long to show a couple of inches above the filling hole of the tank when the cork float is at its lowest point and the encircling tube resting on the bottom of the tank. To prevent the cork adhering to the glass

three ordinary pins are driven through the cork at equal distances round the circumference.

To graduate the gauge a light strip of wood is fixed to the upper half of the tube with two elastic bands. Gasolene is then filled into the tank from a quarter-gallon measure, and as soon as the float rises a pencil mark can be made on the strip of wood corresponding to the level of each quarter-gallon, as indicated by the brass disc. A proper scale can then be drawn on a strip of paper, pasted on to the outside of the glass tube, and protected with a coasting of size and copal varnish. In the figure A are cork plugs, B glass tube, C stencil plate, D wire, E cork float. and F the pin guides.

Sunshine has a deteriorating effect on rubber, a fact which those who reside in countries where the sun shines as a rule, instead of an exception, must find correspondingly expensive. Some rubber manufacturers will sell "specially prepared" tires for the tropics. On all occasions one should endeavor to store outer covers and inner tubes in dark places, and when out driving the same thoughtfulness bestowed on a horse, in leaving it in a shady spot when at rest, may with advantage be given to a motor car. Besides protection from light in the storeroom, the question of ventilation and temperature should not be neglected. Both frost and heat injure rubber, and a temperature of between 60 and 70 deg. should be regarded as that at which it preserves best. Although dampness is by no means harmful to rubber alone, any which is lined with canvass should be guarded from it, otherwise the fabric will become rotten in time.

An experienced motorist suggests the introduction of graphite into lubricating oil, in the proportion of about a teaspoonful to a pint of oil, claiming that it builds up even the most microscopic irregularities on bearing and wearing surfaces of pistons. rings and cylinders, resulting in better lubrication in cylinders, better compression and a saving of oil. He recommends flake graphite.

C L U B S

The Chicago Automobile Club recently passed its ninth birthday, the third day of August, 1900, being the date of its organization. A little group of enthusiasts met and organizel the club in a suite of offices in the Monadnock Block. It was first known as the Chicago Automobile Association, its present title being given to it at a subsequent meeting. Although the original membership list has disappeared, it seems reasonably sure that the active membership of the club to-day does not include a single individual who participated in the initial meeting. Charles T. Jeffery, the well-known maker of Rambler cars, who was one of the first secretaries of the club, is now on the non-resident list. Joseph F. Gunther claims that his is the oldest continuous active membership of the club.

With the object of promoting the development of industrial motor vehicles, an agreement has been entered into between the Royal Automobile Club of Great Britain and the Commercial Motor Users' Association. Under this agreement, the C M. U. A. recognizes the club as the only authority in the United Kingdom for licensing and conducting trials, competitions and tests of self-propelled commercial vehicles, and the club undertakes to consult with the asociation in all matters affecting such events.

Secretary Martin, of the Albany (N. Y.) Automobile Club, advises tourists going from Albany to Pittsfield or vice versa of a detour necessary from the village of East Schodac to Nassau, a distance of five miles and a half due to reconstruction of the road. The Albany Automobile Club has erected signs showing a serviceable route around this section, which is now closed. With this exception, all of the roads of the Albany-Pittsfield route are in excellent condition.

The St. Paul (Minn.) Automobile Club has decided to oppose a proposed speed ordinance putting the limit for automobiles at ten miles an hour in their city. President Reuben Warner, of the club, said: "The State law limits speed to twenty-five miles an hour, requiring discretion by

the driver at crossings, hills and railroads, and where there is heavy traffic. My idea is that the State law covers the situation, but if there must be local laws in addition, then why can't the cities get together and adopt uniform speed regulations?"

The Entertainment Committee of the New Jersey Automobile and Motor Company is planning to have some lively times in the club house at Newark during the fall and winter. An interesting programme of smokers and other entertainmnets is being arranged and will be announced within a few days.

The Abilene (Kan.) Automobile Club has been organized with officers as follows: C. H. Harger, president; J. T. Nicolay, secretary.

The East St. Louis Automobile Club has been organized with thirty charter members. Officers have been elected as follows: I. D. Sager, president; J. E. Comb, secretary and treasurer.

The Automobile Club de la Sarthe is carrying on a useful work in issuing a comparative return of accidents caused by motor and horse-drawn traffic in the Department of the Sarthe. During the nine months ending with July, thirty-nine motor accidents were reported in that district, these causing the death of six persons and injuries to forty-nine others. On the other hand, there were during the same period no less than 512 accidents recorded in connection with horses and horse-drawn vehicles which caused sixty-three deaths and injuries to 498 other people.

The Racing Committee of the Columbus (O.) Automobile Club is busy arranging for the September race meet, to be held at the Columbus Driving Track. The meet will be held late in the month and one of the features will be a twenty-four hour race.

The Scranton Automobile Club has decided to have its second annual club run on September 4, when a trip will be made to Hartford, Pa. Besides a game of ball, a number of games in which automobiles will figure will also be held,.

AUTOMOBILE SPORTS

The North Wildwood (N. J.) Automobile Club will conduct a Labor Day automobile meet on the North Wildwood Speedway. In all, seven automobile and four motorcycle events have been arranged for the afternoon. The programme is as follows: Automobiles-Event No. 1, for cars costing \$1,250 and under, cup and shield; event No. 2, for cars costing \$1,251 to \$2,000, cup and shield; event No. 3, for cars costing \$2,001 to \$3,000, cup and shield; event No. 4, for cars costing \$3,001 to \$4.000; gold watch and shield; event No. 5, for cars costing \$4.001 to \$5,000, gold watch and shield; event No. 6, free-for-all, gold watch and shield; event No. 7, time trials, gold watch and shield. medals to winning drivers and bronze to Motorcycles-Event No. 1, mechanics. 301/2 cubic inch displacement machines, single cylinder; cash to first, second and third. Event No. 2, 48½ cubic inch displacement machines, twin cylinder; cash to first, second and third. Event No. 4, time trials, two trials allowed; cash to winner.

A L. Westgard, president of the Touring Club of America, and W. J. Morgan of the Motor Contest Association, have arranged a second "Jersey Jubilee Tour." It will be remembered that the first tour occurred early in the summer. The dates of the second affair are September 11, 12, 13 and 14.

September 16 has been fixed as the date for the second annual reliability team match between the Chicago Athletic Association and the Chicago Automobile Club. The contest will be over a 150-mile course, mainly in Indiana. The affair will be run on the same general lines as last year's event, there being no limit to the size of each organization's team. It will be a non-stop test, with penalties for repairs or adjustments or failure to make controls on time. The Athletic Association team was the winner in 1908.

A series of automobile races are to be conducted in connection with the Spring-field (Ill.) Fair this fall.

The date of the start of the Flag-to-Flag endurance and reliability contest from

Denver to Mexico City has been fixed definitely for Monday, October 25. contestants will arrive at the Pasco del Reforma, in the Federal District of Mexico. the week of November 15. The event will be run under the sanction of the A. A., and the rules will be similar to those governing the recent A. A. A. (Glidden) tour. The route will be run from Denver by way of Trinidad, Colo., Amarillo and San Antonio, Tex., crossing the border at Eagle Pass, instead of at El Paso, as was originally planned, and touching in Mexico cities of Zacatecas, Aguas Calientes, Celaya. San Juan del Rio. Tula, and the City of Mexico. At the end of the tour the competing cars will be exhibited at a big automobile show in Mexico.

The New Lork Automobile Trade Athletic Association has arranged to hold its first annual outing, field and ladies' day at Lang's New Dorp Beach picnic grounds on Sunday, September 19. Nine athletic events are carded, including a 100-yard dash, hop, step and jump, a sack race, and a 440-yard run. There will be a half-mile race for chauffeurs, a shoe race, a tug of war and a half mile relay race. Five baseball games will be played, after which there will be a shore dinner and dancing in the evening

A large automobile parade is to be one of the chief features of a carnival week which is to be held in St. Louis from October 3 to 9. A committee, consising of Sam D. Capen, president of the Automobile Club of St. Louis, as chairman, and R. E. Lee as secretary, has sent out 2,500 invitations to the automobile owners of St. Louis to participate in the parade. There will be several divisions to the parade. A corps of motorcycle policemen will lead. Following will be the chief of police, the chief of the fire department, the chief of detectives, the chief of the salvage corps and the mayor, all of whom are motorists, and who will immediately follow the marshall. Next will be the Automobile Club of St. Louis, with about 200 cars loaded with children from the orphan asylums. lowing them will be the division of decorated pleasure cars of unattached owners.

HIGHWAYS

Maverick County, Tex., has sold \$50,000 worth of county bonds for the express purpose of building automobile roads out from Eagle Pass to the borders of the This is the first county in the entire Southwest to undertake to build automobile roads with public funds. Owing to the lack of railway facilities, it was decided to encourage the use of the automobile to make up for this deficiency. One of the new roads to be built will run from Eagle Pass to a connection with the good roads of Uvalde County, which in turn connect with roads leading from San Antonio. This, besides furnishing a convenience to the people of Maverick County, will be the means of diverting a large number of tourists to Mexico through Eagle Pass.

The Sussex County (N. J.) Board of Free-holders has ordered the macadamizing of the stretch of road from the Musconet-cong River, at the Morris County line, to the county road in the Borough of Stanhope. The same county has ordered a piece of road three-quarters of a mile long through Stanhope to be laid with stone. This will make a perfect connection on the turnpike from Newton to Newark. The borough of Stanhope is to pay 10 per cent. of the cost, the county to bear the other expense.

Plans are already being prepared for the second International Road Congress, which is to be held in Brussels from July 31 to August 7, 1910.

The Cuyahoga County (Ohio) Highway Commissioners are constructing a brick road east of Cleveland Heights village, the brick being four inches in depth, laid upon a four-inch concrete base between Portland cement curves that are moulded in place. This construction extends about four miles and during the Good Roads convention. to be held in Cleveland, the work can be studied in all its stages from the sub-grading to completing the finished surface.

The Multnomah County Pomona grange, in session at Lents, Ore., recently made two resolutions—that a tax of I mill on the assessed valuation of all property in

the county should be levied next year for the opening and improvement of the public roads in the county, and that the public roads of Multnomah County should not be used for motor car races of any description.

Contracts have been awarded for the permanent improvement of the highways in La Crosse County, Wis.

A dust suppression is being waged on the roads in the vicinity of St. Louis. Oil is being used and among the roads undergoing treatment are those of Glen Echo Park, Arsenal Street, Olive Street Road, Natural Bridge Road, St. Charles Rock Road, Manchester Road, Lackland Road, Clayton Road, Florissant Avenue and in Maplewood.

Automobile owners of South Omaha, Neb., are behind an organized movement to pave several of the city's streets, especially those in the residence section.

A society is being organized in Oakland County, Michigan, to be known as the "Oakland County Good Roads Society," for the purpose of obtaining united effort to promote the building of State reward roads through the main traveled sections of the county, and to solicit subscriptions therefor. One of the roads which the society will undertake to improve will be the Woodward Avenue road, between Twelve-Mile road and Wayne County line.

The Michigan State Automobile Association is taking up the work of sign-boarding the principal roads throughout the State. The first road to be marked will be that from Grand Rapids to Detroit, and following that the road from Detroit to Chicago, via Kalamazoo. Individual clubs throughout the State have been asked to take charge of the work in labelling the routes most favored from their own cities to neighboring points.

The Union County (N. J.) Board of Freeholders has decided to widen and elevate the Pine Grove Avenue bridge at Summit.

The township of Kingsland (N. J.) is endeavoring to compel the Lackawanna Railroad to widen the bridge over the company's tracks at the Ridge road crossing. The bridge is not as wide as the roadway.

AERONAUTICS

An international aviation contest will be held at Campagna, near Brescia, Italy, from September 5 to 20, when prizes to the value of \$17,000 and a silver cup, the gift of the mayor of Milan, will be awarded to the successful competitors. Both dirigible balloons and flying machines will be allowed to enter for one or other set of prizes, but the Grand Prize of Brescia will be awarded to the aeroplane which is the first to accomplish the distance of 100 kilometers. Among the other aeroplane contests will be one for those machines which can travel fastest at a height of more than 230 feet, another for the transportation of passengers by means of an aeroplane, and a third for the flying machine which leaves the earth without special mechanical appliances at the shortest notice. Count Orazio Oldofredi has also offered a prize of \$600 for the first entirely Italian machine which can fly a kilometer in the quickest time.

Henry Farman has won the prize offered by the French National Aerial League to the trainer presenting the most efficient pupil. M. Sommer was the pupil selected.

The Daily Mail, of London, has offered a prize of \$5,000 to the aviator covering in a heavier-than-air machine the greatest total distance across country, either in England or in France, officially recorded either by the French or English Aero Club, in the twelve months dating from the morning of August 15, 1909, to the evening of August 14, 1910. Other prizes offered by the Daily Mail are: \$50,000 for a flight from London to Manchester, open to the world, and \$5,000 for a circular flight of one mile by an all-British aeroplane, before June 30, 1910.

It is proposed to hold a series of aeroplane competitions at Dieppe from the 19th to the 24th of September.

The fourth International Aeronautical Congress is to be held at Nancy from the 18th to the 24th of September.

The Wurtemburg Government has introduced a Supplementary Vote into the Diet asking for the allotment of \$2,250 per annum for a Chair of Aeronautics at the

Stuttgart Technical University. The government has also announced that a sum of \$12,250 has been offered privately for the purpose of establishing a laboratory for aeronautics in connection with this chair.

A new airship for the French military authorities has just been completed by the Astra Company, of Billancourt, France, and was taken out for its first trial last week. It is known as the Colonel Renard, and is somewhat on the lines of the Ville de Nancy, but larger, and has shown greater speed. The airship accomplished a journey of some forty minutes. If the dirigible had been ready a few weeks earlier it would probably have been ordered to take part in the forthcoming manoeuvres, instead of the Republique, which will leave for the field of operations about the beginning of September.

H. La V. Turning, president of the Aero Club of California, has an arnithopter about ready for trial tests, and A. L. Smith, first vice-president of the club, will soon attempt a flight with a biplane, with which he hopes to win the Knabenshue cup, offered the first member of the club who flies 500 feet.

Emperor Nicholas, of Russia, has accepted the post of patron to the Aero Club of St. Petersburg, which will consequently hereafter be qualified as "Imperial." He has given a large sum of money to the club, at the same time permitting four of the grand dukes to be enrolled as honorary members. Grand Duke Michael Alexandrovitch is honorary president of the club.

Russia entered the aeroplane ranks on August 24, when the first flight of a heavierthan-air airship in that country occurred at Odessa. The machine was piloted by an Italian named Catani. It covered four miles at a height of ten feet, but the descent was disastrous. The fore part of the machine was wrecked, and Catani was picked up unconscious and badly cut.

The Indianapolis Speedway promoters are planning to hold some aerial events in connection with their next automobile meet, which is scheduled for the latter part of September or the first of October.

Importance of Signals to a Racing Driver

Joe Matson, the driver of Chalmers-Detroit racing cars, was talking the other day of his preparation for the Lowell, Mass., events in which he will drive the famous No. 19, winner of the Indiana trophy at Crown Point.

"One of the most important things is signals," he said. "The rush of the wind, the bark of the exhaust, the roaring of the other cars and other things make talking impossible in a race. One has to have signals, and on them often depends victory or defeat.

"One usually has signals with the man in the repair pit, though for the most part the holding up of one arm, to show that a stop will be made on the next lap, takes care of the pit. This time, of course, is always shown on a board in front of the grand stand. But the signals between driver and mecanicien are most important. I always devote a lot of time to perfecting my code and making sure that my mecanicien is perfectly familiar with it.

"The mecanicien spends most of his time looking behind. This the driver can't do, because the removal of his eyes from the course, for even an instant, might mean either a lost race or instant destruction. And if anything happens behind, of course the driver has to know it. That makes signals necessary.

"Mine are simple. If the mecanicien holds one finger before my eyes it means 'car coming.' If he holds up two fingers it means 'car close behind.' Three fingers signify 'car very close.' And four means 'car wants to pass.' When he holds his thumb and first finger in the form of an O, I know we are out of oil. That about covers them, but it is mighty important that both of us shall be perfectly familiar with the code. In many a race those few signs are the only communication between driver and mecanicien. Until one has been in a race without well-developed signals the real value of them doesn't strike home.

"It's a fact that when one is traveling at that speed there would be very little conversation, even if it were possible.

Jean Bemb Wins Minneapolis Contest

Nine of the ten starters finished the two-day reliability run from Minneapolis, Minn., to Duluth and return, on August 24 and 25 for the Tribune trophy. Jean Bemb, driving a Chalmers-Detroit, finished the two-days' journey, and went through the Technical Committee's examination with the best score and was awarded the trophy. A Chalmers-Detroit also won the run of last year.

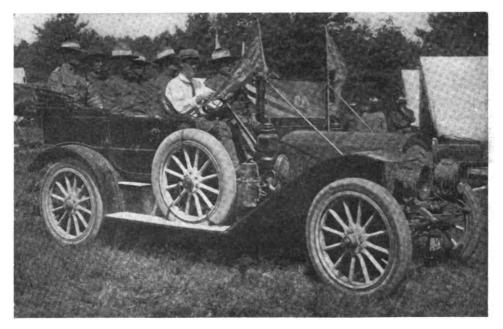
The score made by Bemb was only one point less than that made by Carris, in a Franklin, while another Chalmers-Detroit was only four points behind Carris. The Chalmers-Detroit driven by Bemb is the same one that was used during the Glidden tour, and it still has

two Diamond tires that contain the same air that was pumped into them before the car left Detroit on the 2,600 mile journey to Kansas City via Denver. The run for the Tribune trophy was an easy one, except for the last stages, when sandy roads had to be negotiated. The Hupmobile, the only car to retire from the run, did it through a misunderstanding at Duluth. The scores after the economy, brake and clutch tests, and including the road penalties, were:

Chalmers-Detroit, 957; Franklin, 956; Chalmers-Detroit, 952; Pierce-Arrow, 926; Ford, 839; Pullman, 816; Gaeth, 813; Ford, 760; Lozier, 641; Hupmobile withdrawn.

Col. Sullivan's Car in the Manoeuvres

Excellent service was performed in the recent Massachusetts military manœuvres by a Model 45 Rambler, which was used almost continuously by Colonel Sullivan. The car, which was in charge til 12 P. M. It was used over rough roads, many times had to cross fields, and went through the woods where the underbrush was not too thick, and no trouble of any kind was encountered



READY FOR A DASH TO THE FRONT

of J. P. Brennan, of the New England branch of Thomas B. Jeffery & Co., was used to dispatch messages at all hours of the day and night, and on some days it was in service from 3 A. M. unwith the car, with the exception of one puncture; and, as the car was equipped with a Rambler spare wheel, it was a matter of only a short time to overcome this tire trouble

Chicago Police After Speeders

Chicago police officials were recently instructed to deal severely with automobilists who exceed the speed limit on the city streets. The order came from Commissioner of Public Wrks J. J. Hanberg, and was the result of a number of accidents that occurred recently in which motor cars were implicated.

The commissioner said the streets had been made so dangerous for pedestrians that unless the Police Department took steps to protect the public, the Department of Public Works might be compelled to follow the example of the village of Glencoe and put in "bumps" at all street crossings.

Two hundred orphan children were the guests of the Minneapolis (Minn.) Automobile Club on August 21. Members of the club and others donated cars for the event.

Lower Freight Rates for Automobile Shipments

A material and very welcome decrease in automobile freight rates is announced by the General Traffic Department of the National Association of Automobile Manufacturers as follows:

"An announcement has been made by the General Traffic Department of the National Association of Automobile Manufacturers, Inc., to the effect that after October 1 shipments of single automobiles will be charged for by the railroads on an actual weight basis, instead of fixed minimum weights. Heretofore the railroads have charged 8,000 pounds at first-class freight rate for any passenger machine with wheel base exceeding 86 inches. As many, and perhaps most, of the low-priced machines nowadays have wheel base exceeding 86 inches, there has been much complaint against the charge of 8,000 pounds on these machines when shipped by freight. The advantage claimed for the new arrangement is a more equitable distribution of the transportation charges, so that the smaller machines will hereafter be taken at the equivalent of 5,000 pounds, at first-class, and the charges increased only as the weight, size and value increases, the point being made that automobiles are of substantial and varying weights. Similar changes will be made on shipments boxed or

crated, on which actual weight will apply, instead of fixed minimum weights heretofore applied according to the size of the packages. The new classification affects shipments originating in the Northern States east of the Mississippi River, thereby including practically the entire manufacturing belt.

"The National Association's traffic department effected an arrangement on a similar basis with western and southern railroads some time since.

"The automobile industry is represented in such matters by the General Traffic Department of the National Association of Automobile Manufacturers, Inc., and by arrangement between the associations, the General Traffic Department also represents the Association of Licensed Automobile Manufacturers and the American Motor Car Manufacturers' Association, with J. S. Marvin as general traffic manager, factory traffic managers co-operating under this plan on matters of general interest. This department is in touch at all times with the transportation charges on automobiles and parts throughout the country, Mr. Marvin attending meetings of railroad rate committees at various points to make the requirements of the industry understood, as in this case."

Blanks Sent Out for Palace Show

The American Motor Car Manufacturers' Association has distributed application blanks for space and diagrams for the Tenth International Automobile Show, which opens in the Grand Central Palace, New York, on New Year's Eve, and will continue until Friday evening. January 7, 1910.

Opening last year's Grand Central Palace show on New Year's Eve proved so successful. Chairman R. E. Olds and

his associates on the Show Committee decided that no better opening night could be secured for the tenth affair. New Year's Eve is a gala occasion in New York, and motorists and dealers generally can attend the opening night of the show and then, if they so desire, enjoy the annual festivities of New Year's Eve, which begin in earnest on Broadway at midnight.

The Palace diagrams show an in-

creased amount of floor space over that of previous years, and this year the management has 72,000 square feet to dispose of, giving the exhibitors better facilities.

With the A. M. C. M. A. will be the members of the Importers Automobile Salon, making the Grand Central Palace show the only international affair of its kind held in America. The foreign cars will, as last year, be exhibited on the main floor with those of the makers holding membership in the A. M. C. M. A.

On the main floor and part of the balcony floor will be American and foreign gasolene, steam and electric pleasure vehicles. The commercial vehicles, as heretofore, will be located on the first balcony floors, as well as the motocycles. On the main, first and second balcony floors will be the tires, parts an I accessories, the members of the Motor and Accessory Manufacturers having contracted for several thousand square feet on the first balcony floor.

All applications for space received up to Friday, October 1, 1909, will have

equal consideration in the first allotment on Friday, October 8. The allotment of space to the members of the Motor and Accessory Manufacturers will be made by that association, as is the case with the members of the Importers' Automobile Salon. Members of the A. M. C. M. A. will have the first drawing of vehicle space other than that allotted to the members of the Importers' Automobile Salon.

Associated with Chairman R. E. Olds, of the Reo Motor Car Company, are S. H. Mora, Mora Motor Car Company; Benjamin Briscoe, Maxwell-Briscoe Motor Company, and H. O. Smith, Premier Motor Mfg. Co. The Importers Automobile Salon will again be represented on the Show Committee by R. E. Hollander, of the Fiat Automobile Company, and the Motor and Accessory Manufacturers will be cared for by David J. Post, of the Veeder Mfg. Company, Hartford, Conn. general management of the show will again be under the supervision of General Manager Alfred Reeves, of the A. M. C. M. A.

German Motor Trade's Bad Year

It appears from the German Consular Reports, that whereas 1907 was a fairly good year, 1908 proved to be one of the worst on record. Times being bad people have given up buying motor cars, and owners, too, have thrown their cars The result is that the on the markets. market is flooded with bargains in motor cars; new cars are hardly bought at all, and prices have become entirely unremunerative. Only the very first-class motor car builders have been able to keep their works going and sell their best cars. Second rate manufacturers have failed to make ends meet. supply has grown tremendously and the demand has increased daily. Whether things will improve depends entirely on how soon the general industrial and trade depression ceases.

Ever since the new government regulations making the owner of the car responsible under all circumstances for any damage done on the road by his car have become law, people have taken fright, and intending buyers have given up the idea of motoring owing to the risk of liabilities.

All the trades and manufacturers connected with motor cars and motor accessories are suffering equally. Pneumatics, benzine, oil, lanterns, etc., are all at a discount in consequence of the general depression in trade.

Test of Headlights by Royal A. C. (Continued from page 1490)

dazzle is obtained either when the lamp is very low down (2 ft. from the ground, a downward tilt increases the dazzling effect.

The judges are of opinion that this is due in a measure to reflection from the surface of the road, although this was not as light in color as is often the case.

25. When the lamp is tested below the level of 3 ft. from the ground, maximum dazzle was obtained with an upward tilt.

Nevertheless, the effect on dazzle of tilting the lamp within reasonable limits is unimportant.

26. Undue tilt of the lamp causes considerable difference in the illuminating power, whereas height has an appreciable effect in diminishing the dazzle.

The best position would appear to be at 2 ft.

27. As regards illumination the horizontal is the best position from the driver's point of view, except at a height of 7 ft. 6 ins., when a slight downward tilt is desirable.

NON-GLARE DEVICES

28. The automatic anti-dazzling devices other than specially arranged mirrors or lenses appeared in every case to diminish the range, but in one case this effect was only slight.

- 29. Three lamps were provided with gold reflectors, a development which is expected in consequence of the color to prove of advantage in time of fog. It was not possible to adjudicate, in this respect, upon these or other lamps with similar claims, owing to the absence of fog during the test.
- 30. Appliances can be added to almost any type of headlamp whereby the light may be reduced; for example, with electric lamps by a switch diminishing the voltage or inserting resistance, and

with acetylene lamps by partly or wholly obscuring the light by means of handactuated shutters or screens. The advantage of such a hand-actuated device is that on entering a town the intensity of the light from the headlamp can at once be moderated.

OTHER REMARKS ON SUNDRY MATTERS

- 31. The lamps have been tested singly, but in many, if not in most cases, users employ a pair of lamps. It should be noted that a wider beam is required from a lamp which is to be used singly.
- 32. In consequence of the time and labor which would have been involved had all the lamps which entrants wished to submit been tested, it was decided to accept from them only those lamps which were of distinct types, irrespective of candle-power.

Accordingly, it must be remembered that in most cases the manufacturer of a high-power lamp also makes small and medium-powered lamps, and viceversa.

33. The judges desire to express their thanks to Mr. Carl Oppermann for the loan of electric apparatus, to the Acetylene Illuminating Company, Ltd., for providing dissolved acetylene; to Messrs. Elliott Brothers for the loan of scientific instruments, and also to those who rendered assistance.

Complains of Abutment Openings

As the result of a complaint from a resident of Roslyn, Long Island, that the abutment openings are not being built wide enough, work may be halted on the Long Island Motor Parkway, despite the fact that the parkway officials are rushing work on the motor highway, an immediate investigation will be made by the Nassau County Supervisors, to whom the complaint was made.

Good Roads Convention to Be Representative

As the time draws near for holding the second annual National Good Roads Convention, which opens at Cleveland, O., September 21 and continues until the 23, it becomes apparent that the convention is to assume national importance. From all sections inquiries and promises of support have been coming in, and it is now certain that the delegates will be thoroughly representative of the good roads feeling which exists all over the country.

That the Southern States are thorcughly alive to this necessity was clearly exemplified in the Louisana Good Roads convention, held this month in Baton Rouge, at the call of the governor. Beside heralding the era of better roads for that State as the subject under discussion, was the building of improved highways on both sides of the Mississippi River connecting Baton Rouge and New Orleans, Gov. Sanders expressed his interest in the coming National convention by naming six delegates to attend the meeting in Cleve-

land. Among them was Secretary A. Aschaffenburg, secretary of the Motor League of Louisiana, which is affiliated with the American Automobile Association, and has taken a leading part in stimulating the demand for better roads in his State.

The United States Government was represented at the Louisiana convention by George T. Cooley, of the Good Roads Department, and it was attended by the State representatives in Congress and other prominent officials. It was universally admitted as being the most important meeting ever convened in Louisiana for the purpose of discussing the good roads movement, having a specific end in view, and definite steps were taken to complete sections of the New Orleans-Baton Rouge road within the next year.

Gov. Sanders, who delivered the leading address, stated that it was no longer a debatable question as to whether the people wanted good roads or their willingness to provide money for them.

Itinerary of Munsey Reliability Contest

Washington, D. C., August 28.— The pathfinders of the Frank A. Munsey reliability contest, from Washington to Boston and return, September 21-29, have returned, and they report that the distance of the route laid out is 1,282.2 miles. As there will be seven running days the average daily mileage will be 183.1 miles. The complete route follows:

September 21—Washington, D. C., to Baltimore, to Philadelphia, Pa., via York and Lancaster, 195.3 miles.

September 22—Philadelphia, Pa., to Milford. Pa., via Allentown and Delaware Water Gap. 132.6 miles.

September 23—Milford, Pa., to Albany, N. Y., via Goshen and Kingston, 158.5 miles

September 24—Albany, N. Y., to Boston, Mass., via Springfield and Worcester, 194.2 miles.

September 25—In Boston. September 26—In Boston.

September 27—Boston, Mass., to New York City, via Providence, Willimantic. Hartford, New Haven, Bridgeport, 239.4 miles.

September 28—New York City to Philadelphia, Pa., via Perth Amboy Ferry, Atlantic City, Camden, 198.3 miles.

September 29—Philadelphia, Pa., to Baltimore, to Washington, D. C., via Wilmington and Newark, 163.9 miles.

Total mileage, 1,282.2 miles. Number of running days, 7. Average per day, 183.1 miles.

Twenty-nine cars, embracing twenty-five different makes, have been entered to date, and it is probable that the entry list will number thirty-five cars by the time the entries close at noon, September 11.



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The Old and the New Vanderbilt Race

That "Vanderbilt" is still a name to conjure with is made plain by the now apparently successful effort to revive the race for the Vanderbilt Cup. If the contest is held it will be the Vanderbilt Cup race only in name; the glories of that famous event have departed, and until the ban on European road races is lifted and conditions in this country alter greatly there is not the slightest probability of a real revival of the premier American speed contest. It is a pity that this is so, for the Vanderbilt race was both an international and a national event, one which drew spectators from every section and held attention as no similar contest has done in this country before or since. It was the American Bennett Cup race and Grand Prix rolled into one, and it did a world of good in improving the design and construction of the home product. The place it held in the automobile world, no less than in the public mind, can never be attained by any other fixture, no matter what happy conjunction of circumstances may be responsible for its birth and continued existence.

But if we must bid good-bye to the Vanderbilt race as we knew it, there is no reason why a stock chassis contest for the Vanderbilt Cup should not make for itself a good name and fill a position of solid worth. The car of to-day is not so near perfection that it cannot be improved, and competition in such events as the proposed Vanderbilt contest must inevitably work for the desired advance. Tests of speed will reveal deficiencies or efficiencies as nothing else will, and proper

classification will aid greatly in determining wherein superiority or inferiority lies.

But a race of this character should be properly conducted. Both the participants and the spectators should be safeguarded, and the harrowing casualities which have marked so many recent speed contests be made conspicuous by their absence.

A Good Friend But a Bad Master

Automobile accidents, fatal or otherwise, on road or track, en tour or in speed contests, are all too numerous at the present time. It is not sufficient to urge in palliation that the daily papers exaggerate and give too much prominence to the mishaps of motorists, and that in proportion to the number of users, or tourists, or speedsters, accidents are not unduly frequent. All this is true, but it does not alter the fact that every automobile accident, or nearly every one, is preventable, and that the public does not understand this, but draws a false inference which does harm in two ways. It frightens off possible buyers and confirms the impression that prevails in many quarters, that the automobile is still the Juggernaut that saffron journals used to paint it, and that its drivers hold human life lightly—their own as well as others.

Everybody familiar with the subject knows that the modern automobile is the safest vehicle in use to-day. It cannot blow up (despite a limited belief to the contrary), burn up, run away, or do anything else contrary to the wish of its operator. It is absolutely under control at all times—provided the most ordinary and necessary precautions are observed; it can be driven at a snail's pace, weave its way safely through the densest traffic, ascend or descend the steepest, roughest and most winding hills—and all without doing anything to alarm or startle the most nervous person that ever occupied a seat beside or behind the driver. But to do this, it must be handled sanely and with a due appreciation of the possibilities of evil that are contained within it. Like fire and water, it is a good friend but a bad master. Control it and it will be docile and obedient—more so than any horse; but give it its head, so to speak, run amuck with it, take chances of all kinds, make use of the vast potentialities for evil contained in its mechanism, and it will prove a very Frankenstein and become the master of its erstwhile overlord.

Until drivers realize all this and govern themselves accordingly, accidents will continue to occur. The authorities can do something to bring about a reform, but not very much. The chief offenders are experienced and expert drivers. They will persist in taking chances, relying upon their skill and knowledge to pull them through in tight places. Usually they guess right, but sometimes they make a miscalculation, or the other fellow does not act in accordance with the assumed probabilities, and then something happens. The only safe course is to take no chances.

TRADE DEPARTMENT

Strengthening Continental Selling Forces

Several additions to the selling forces of the Continental Caoutchouc Company have been made recently, all designed to strengthen the selling organization of that well-known concern. The most important of these changes is the appointment of O. S. Tweedy, for many years manager of the Chicago branch of the Diamond Rubber Company, and recently connected with the Federal Rubber Company, as sales manager of the Continental Company. His duties commence September I.

J. M. Gilbert, general manager of this concern, has also made several other

changes for strengthening his selling organization by appointing E. E. Mc-Masters sales manager for the West. and J. H. Sheldon in a similar capacity in the East. Several branches have recently been added, the latest being located in Boston, at 895 Boyleston Street, with E. E. Kidder as manager. A Philadelphia branch has been arranged, with office at 154 North Broad Street, and managed by S. S. Poor, formerly New England representative for Continental tires, and C. A. Gilbert the Chicago manager, with offices located at 1412-14 Michigan Boulevard.

Groxton-Keeton in New York

The Jewell Motor Car Company, of New York, 1662 Broadway, has been succeeded by the Croxton-Keeton Motor Car Combanp, of New York, capitalized at \$60,000, and will occupy the quarters now used by the Jewell company.

H. A. Croxton, whose name appears in the designation of the company, and who is president of the parent company, The Croxton-Keeton Motor Company, Massillon, O., is the president of the New York company; W. D. Grand, of the Tichenor-Grand Company, vice-president, and J. P. Stoltz, who has so successfully handled the Jewell line in New York during the past year, secre-

tary and treasurer. The 1910 Croxton-Keeton line consists of ten different models, built on three chassis of 30, 45 and 50 horse-power.

The 45 hp. cars will be practically a duplicate of the 1909 Jewel cars, and will be known as the Croxton-Keeton, German 45s. The 30 hp. cars will be particularly adapted to town car use and will be known as the Croxton-Keeton, French 30s, and the 60 hp. cars for heavy touring, will be known as the Croxton-Keeton, French 60s.

The New York company will handle all of the Eastern territory and have already established a large number of agencies.

Plans of New Wisconsin Company

The Badger Motor Car Company, of Columbus, Wis., is planning to build 500 cars in 1910. There will be three styles of body on one chassis, and the complete car will sell at \$1,500. The officers of the company are: A. B. Bellack, president; Christian Kurth,

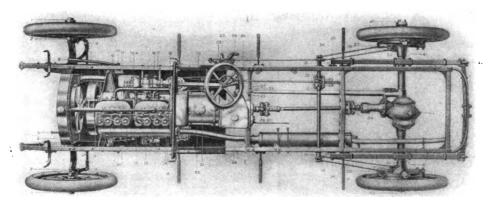
vice-president; G. C. Holtz, secretary; J. R. Wheeler, treasurer.

A one-story building, 50x150, is now being erected at Columbus on the twenty-two acre tract of the company on the main line of the Milwaukee road.

Stevens-Duryea Instruction Book

No Stevens-Duryea owner can fail to be interested in the Instruction Book of the four-cylinder models "X," "XXX," which has just been issued by the enterprising Chicopee Falls concern. It is a pamphlet of 40 pages, containing complete and even minute instructions regarding the care of these Stevens-Duryea models'instructions so plain that the veriest tyro could scarcely fail to understand them, especially as they are illustrated with diagrams and cuts that

6—Seering rod, oil, every day. 7—Fan support, oil, every 300 miles. 8—Tie rod, grease, every 200 miles. 9—Fan bearing, grease, every day. 10—Springs, oil, every day. 12—Valve tappets, oil, every day. 12A—Rocker shaft and connections, oil, every 300 miles. 13—Magneto, oil (light), every 500 miles. 14—Magneto connection, oil, every day. 15—Magneto bearings, grease, every 200 miles. 16—Steering post. grease, every 750



STEVENS-DURYEA CHASSIS

leave nothing to be desired as to clearness. The accompanying reproduction of the chassis is taken from the pamphlet, in which it occupies two full pages. Under such headings as "Water," "Gasolene," "Front Axle," "Coil," etc., the various parts are described and illustrated.

In connection with the chassis drawing, the following list of parts correspond to the number on the diagram, while directions for lubricating are also given, the order being, number of part, kind of lubricant and when to lubricate:

1—Front hubs, grease, every 1,000 miles. 2—Steering knuckles, grease, every 200 miles. 3—Springs, oil, every day. 4—Carburetter primer, oil, every day. 5—Starting handle, oil, every day.

miles. 17—Timer, oil, every day. 18— Steering post, oil, every 200 miles. 19— Clutch bearing and brake pedal, oil, every 200 miles. 20—Clutch bearing, oil, every 200 miles. 21—Clutch ring, oil, every 500 miles. 22—Gear shift lever, oil, every day. 23—Emergency brake lever, oil, every day. 24-Transmission, oil (heavy, I inch deep in case). 25—Torsion rod spring, oil, every 300 miles. 26—Torsion rod bearings, grease. every 300 miles. 27-Torsion rod bearings, grease, every 300 miles. 28-Ball joints, oil, every 200 miles. 29-Universal joints, grease, every 250 miles. 30—Sliding joint (universal), grease, every 250 miles. 31—Brake bearings, oil, every 200 miles. 32-Brake rods, grease, every 300 miles. 33-Brake

esualizer, oil, every 300 miles. 34—Brake rod ends, oil, every 200 miles. 35—Brake rod ends, oil, every 200 miles. 36—Springs, oil, every 200 miles. 37—Brake arm bearings, grease, every 200 miles. 38—Brake rod arm ends (upper

and lower), oil, every 200 miles. 39—Brake rod ends, oil, every 200 miles. 40—Rear hubs, grease, every 1,000 miles. 41—Spring seats, grease, every 200 miles. 42—Rear axle, oil (heavy) to overflow, every 750 miles.

Rambler First Reaches Point Reyes

About fifty miles north of San Francisco is located the old Point Reyes lighthouse standing far out on a high rock which projects boldly into the Pacific Ocean.

For years no automobile ever ventured



AT THE POINT REYES LIGHTHOUSE

within five miles of this lighthouse until a week ago, when L. B. Harvey, who drives the Rambler in record-breaking trips on the Pacific coast, took a new Rambler through the sand, visited the lighthouse and brought back an affidavit from the principal keeper, testifying to the fact that the trip had been made. Harvey carried four passengers in a Model Forty-Four Rambler equipped with 5-inch tires. Beyond Point Reyes, five miles from the lighthouse, there is a waste of drifting sand and scarcely a sign of a road, with here and there patches of sage brush. By letting out the air in the tires until they stood about half inflated, the sand was negotiated. After four hours of hard work cutting away sage brush and filling in holes, during which the wind reached a velocity of seventy-five miles an hour, the car reached the lighthouse.

Gould to Handle Rainiers in Boston

George T. Gould, who for the past year has been connected with the Rainier selling force in New York City, has been appointed New England agent for Rainier cars, with headquarters in Boston. He left New York for Boston last week, and has obtained show room and garage on Boyleston Street, which will be open and ready for business by the end of this week.

Gould is an old hand at the business, having been identified with the automobile industry from its earliest stages. He is well acquainted in Boston, where he resided for a number of years.

On September I the Los Angeles branch of Morgan & Wright will remove from 118-122 East Tenth Street to more commodious quarters at 1108 South Main Street, where they will have better facilities.

Reached New York with Los Angeles Air

A recent double transcontinental automobile tour that proved the worth of Fisk tires was completed a few days ago by Everett Mead and A. Newton Mead, of Greenwich, Conn. They covered 10,185 miles since May 19 last and on the long tour they used various makes of tires with varying degrees of success. At Los Angeles, Cal., however, they put on one Fisk tire on a rear wheel and reached New York with the salt Pacific Coast air of Los Angeles in it; not a puncture of blow-out having been experienced.

The transcontinental run was not as direct as it might have been, for a trip of 1,600 miles from Los Angeles to Seattle, over Mt. Shasta and the rough Siskiyen Mountains was made before the car headed eastward.

Maxwell Parking Space at Lowell

Following their custom the Maxwell-Briscoe Motor Company have closed a deal whereby they will have at their disposal twenty acres of land belonging to the Butterfield Farm, of Lowell, Mass, which space will be open to Maxwell owners as a free parking space for their cars during the Lowell races. As a rule, owners of ground located along automobile race courses turn the circum-

stance to profitable account by charging stiff prices for the privilege of parking cars in localities where the race can be viewed. For this reason the custom of the Maxwell people to provide owners of their cars with free parking accommodations is much appreciated.

Robertson to Drive at Lowell

A 50 hp. Simplex, with George Robertson as driver, has been entered in the heavy car race in the National Stock Chassis Competition, which takes place at Lowell, Mass., on September 8. The car which he is to drive is a duplicate of the one with which he established the world's twenty-four hour record of 1,177 miles at Brighton Beach last October.

Morgan & Wright Branch in Atlanta

Morgan & Wright have just taken possession of their new premises at 50 North Pryor Street, Atlanta, Ga. Herbert Starnes is manager of the new branch, which succeeds the Alexander-Seewald Company. He is one of Morgan & Wright's oldest employees, and has acted as their Southern representative in the States of Kentucky, Tennessee, Mississippi and Alabama for several years past.

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INDEX TO ADVERTISERS

Automobiles (Electric)—	
Baker Motor Vehicle Co	1514
Studebaker Automobile Co	1452
Automobiles (Gasolene)—	
Buick Motor Co	1449 1513
Haynes Automobile Co	1510
HerreshoffHarry S. Houpt Co	1512
Inter-State Automobile Co. Locomobile Co. of America. Matheson Motor Car Co.	1513
Matheson Motor Car Co	1514
Maxwell-Briscoe Motor Co	1451
Mitchell Motor Car Co	1512
Mora Motor Car Co	1446
Palmer & Singer Mfg. Co	1512
Paimer & Singer Mfg. Co. Peeriess Motor Car Company	.0161
RamblerThos. B. Jeffery & Co	
Rea Major Co	1453
The F. B. Stearns Co. 1909 A. A. A. Tout	. 494
Stevens-Duryea Co	1404
Stevens-Duryes Co. 1909 A. A. A. Tour	1481
	1452 1512
Winton Motor Carriage Co Inside Front C	Cover
Automobiles (Steam)—	
The White Company	Cover
Lane-Lane Sales Co.	1513
Batteries-	
Stanley & Patterson	1457
Bodies-	
Springfield Metal Body Co	
Auto-Rebuilding Co	1514
Champagnes-	
Pommery	1515
Classified Advertisements	1514
Coils—	1) 1 4
	1
Heinze Electric Co	1515
Dust Preventives-	
Tarvia-Barrett Mfg. Co	
Electric Welding-	
Standard Welding Co	1455
Eye Tonic-	
Murine Eye Remedy Co	1512
Penders	
Auto-Rebuilding Co	1514
Graphite-	
Joseph Dixon Crucible Co	1514
Ignition Devices-	
A. R. Moeler & Co	1511 1454
C. F. Splitdorf	1514
Elemana Magneto Lavalette & Co	1513
1. S. Bretz & Co	1515 1459
Standard Sales Co	1510

Instruction— Correspondence School of Motor Car Practice	
Lamps— Badger Brass Mfg. Co. 1450 Gray & Davis 1460	
Legther— The Pantasote Co	
Lubricants 151 Columbia Lubricants Co 151 Joseph Dixon Crucible Co 151 Vacuum Oil Co 151	4
Magnetos— 1450 Bosch Magneto Co. 1450 C. F. Spittdorf 1511 Bleemann Magneto—Lavalette & Co 1511 Heinze Electric Co. 1511 J. S. Bretz Co. 1450	5
Oils— Columbia Lubricante Co	
Parts— Billings & Spencer 151-35andard Welding Co. 145	
Photo Engravers— Sterling Engraving Co	4
Seats Auto-Rebuilding Co	4
Second-Hand Dealers— Times Square Auto Co	1
Shock Absorbers— Bi-Cal-Ky Auxiliary Spring Co	4
Signalling Devices— Nightingale Whistle Co	3
Spare Wheels— United States Spare Wheel Co	2
Spark Plugs— A. R. Mosler & Co. 151 Standard Sales Co. 151	
Timers— A R. Mosler & Co	ı
Tires— Ajax-Grieb Rubber Co	ı
Continental Caoutchouc Co	7
Tire Grips— Weed Chain Tire Grip	0
Tops— Sprague Umbrella Co	4
Detroit & Cieveland Navigation Co	3
Wind Shields—	

News Notes

An addition is to be erected to the plant of the Ajax-Grieb Rubber Company, of Trenton, N. J.

The Hearsey-Willis Company, of Indianapolis, has secured the 1910 Hupmobile agency for Indiana.

The Missouri Motor Car Co., 1131 Olive Street, St. Louis, Mo., has added the American Simplex car to its line.

Palmer & Singer cars are to be handled in Washington, D. C., by the L. D. Moore Co., 829 West Fourteenth Street.

Stearns cars are to be distributed in St. Louis from the headquarters of the Mississippi Valley Automobile Corporation.

Dallas, Tex.—Ferris Dunlap Motor Car Company, with \$10,000 capital. Incorporators: F. A. Ferris, O. Dunlap and Neill White.

The White Garage Company has been established at 5023 Delmar Avenue. St. Louis, where both steam and gasolene White cars will be handled and cared for.

The E. B. Eddy Company, of Ottawa, Canada, one of the largest wood pulp and paper making concerns in the Dominion, now almost entirely use motor vehicles in the hauling of paper, pulp wood, etc.

E. B. Sellard, of Mexico, Mo., has patents pending on a motor plow, driven by a 16 hp motor. The machine will operate and pull a threshing machine or run a corn sheller or any other kind of farm machinery.

The Overland Automobile Company, of Denver, Colo., has elected new officers as follows: W. J. Carter, president; C. B. Campbell, secretary and treasurer; T. W. Fugate; vice-president; A. C. Lee, sales manager.

The Baker Electric Vehicle agency, of Chicago, has leased for ten years the property on Michigan Avenue, 100 feet south of Twenty-third Street. Work is to begin at once on a new building, and it is to be ready for occupancy by May 1.

The Janesville Motor Car Co., of Janesville, Wis., is constructing a new garage at 140 North Main Street. The structure is to be two stories high, and the first floor will have no pillars or posts, giving an unobstructed floor space of more than 4.500 square feet.



BEFORE

"O DEAR, THE DIRT, THE SWEAT, THE SORE HANDS, THE TIME AND THE CUSSES BEFORE I COULD REPLACE AN INNER TUBE."

AFTER

"AS EASY AS A JACK POT WITH FOUR ACES—AND OFF I WENT CLEAN, HAPPY AND UNDELAYED."

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The Haynes Automobile Company, of Missouri, has been organized by F. W. Niedermeyer and H. B. Kline, of Columbia, and H. M. Paine, of St. Louis. The company will have headquarters in St. Louis and will distribute Haynes cars in that city and throughout the eastern part of Missouri.

A joint picnic was held at Central Park, Racine, Wis., on August 22, by the employees of the Michell Motor Car Company, Racine Manufacturing Company, Pierce Motor Car Company, and Piggins Brothers Co., of Racine, Wis., and Thomas B. Jeffery & Co., of Kenosha, Wis. This is to be made an annual affair.

The E. R. Thomas Motor Company, of Buffalo, has appointed Arthur W. Haile as city sales manager. vice C. T. Paxson, who will have charge of the Chicago branch. Mr. Haile is well known to all Buffalonians, and has been connected with the Company for the past three years, in the capacity of assistant city sales manager.

The recently-formed Gary Motor Car Co., of Muskegon, Mich., has elected officers as follows: President, J. J. Maloney. of Chicago; treasurer, J. G. Ross. of Muskegon; secretary and assistant treasurer, W. L. Simonton, of Chicago. The board of directors is to consist of the officers and A. G. Gary. of Chicago, who owns a large percentage of the stock.

The United States Pump & Tank Co. has been organized in St. Louis. It has started the manufacture of pumps and tanks of all kinds for automobile garages, public and private, and for manufacturing concerns which use or handle oils in any quantity. The officers are John J. Behen. president: J. Curtis Barcus, vice-president, and Fred F. Davis, secretary and general manager.

The victory of the Renault car driven by Basle and Raffalovitch in the twenty-four hour race at Brighton Beach last week, scored another tri-umph for Monogram oil. This machine, which ran so consistently throughout the long grind, had no lubrication trouble of any sort. At the finish of the 1,050 miles, the motor purred away as smoothly and the transmission worked just as evenly as when the car started. This car, which also won the twenty-four hour race at Morris Park in 1907, was not racked and "played out" after the twentyfourth hour. It now stands as sound as when built two years ago. The S. P. O. car, which rolled up the greatest mileage in the six-hour light car race on Friday, and the Fiat Cyclone, driven to victory by Ralph De Palma in the five-mile match feature event, were both lubricated with Monogram.

INCORPORATIONS

Cincinnati, O.—Wilberding and Brandeweide Company, with \$10,000 capital, to deal in automobiles. Incorporators: W. L. Furste, B. H. Wilberding, Fred Brandewiede. Phil Schneider and Joseph Berning.

Denver, Colo.—Pioneer Motor Car Company, with \$6,000 capital. Incorporators: S. B. Canott, O. E. Byron and Robert Reinhart.

Chicago, Ill.—Eureka Auto Supply Company, with \$2,500 capital. Incorporators: Henry Guerin, M. F. Gallagher and E. H. Williams.

Columbus, O.—Instantanoeus Lighter Company, with \$30,000 capital, to manufacture automatic automobile lamp lighters. Officers: F. C. Barger, president; L. B. Barger, treasurer.

Chicago, Ill.—Bridge Web Tire Company, with \$2.500 capital, to manufacture automobile tires. Incorporators: F. H. Drury, S. Lewis and E. H. Clegg.

Muskogee. Okla.—Southern Automobile Company, with \$200,000 capital, to conduct a garage and livery. Incorporators: S. H. Criswell, John C. Beughr and Etta E. Criswell.

Albany, N. Y.—The Motor Cups Holding Company of New York, with \$5,000 capital, to promote automobile races for the cup donated by William K. Vanderbilt, Jr., and known as the Vanderbilt Cup, and for the gold cup donated by the Automobile Club of America, and known as the Grand Prize. Directors: William K. Vanderbilt, Jr.; Henry Sanderson, Colgate Hoyt, Harry Payne Whitney, Henry B. Anderson, Elbert H. Gary, William Pierson Hamilton, H. B. Hollins, Dave H. Morris and Mortimer L. Schiff

Automobile Calendar

September 4-5.—Mont Ventoux Hill-climbing Contest, under the auspices of the Vanclusien Automobile Club.

September 4-5-6.—Three-day's endurance contest, under the auspices of the Council Bluffs (Ia.) Automobile Club.

September 4-19.—Austrian Aero and Industrial Exhibition at Linz.

September 5.—Aeronautical events at the Indianapolis Motor Speedway grounds.

September 6.—One mile straightaway speed contests, North Wildwood Automobile Club, North Wildwood, N. J.

September 6-11.—Six Days' Motor Carnival, under the auspices of the Lowell (Mass.) Automobile Club.

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MITCHELL MOTOR CAR CO., 609 Mitchell St., Racine, Wis. Standard Manufacturers A. M. C. M. A. September 6-11.—Automobile Show in Minneapolis, Minn., in connection with the Minnesota State Fair.

September 8.—Automobile Track Race at Richmond, Va., under the auspices of the Richmond Automobile Club.

September 8, 9, 10.—Series of Automobile Events at Seattle, Wash., including 24-hour race and hill-climbing contest.

September 10-11.—Twenty-four hour race at Baltimore, Md., under the auspices of the Motor Car Racing Association.

September 11, 12, 13, 14.—Second Jersey Jubilee Tour, under direction of the Touring Club of America.

September 11-19.—Florio Cup Race, under the auspices of the Automobile Club of Bologne, Italy.

September 12.—Two Automobile Road Races, under the auspices of the Automobile Club of Ostend.

September 15.—Start of Endurance Contest from Denver to Mexico City.

September 15-18.—Annual National Motor Boat Carnival on the Hudson River, under the auspices of the Motor Boat Club of America.

September 16.—Second annual reliability team match between the Chicago Athletic Association and the Chicago Automobile Club.

September 17.—Race for Light Cars on the Ostend Circuit, under the auspices of the Belgian Automobile Club.

September 18.—Automobile Track Race at Syracuse, N. Y., under auspices of Automobile Club of Syracuse.

September 18.—Decorated Automobile Parade at Denver, Colo., in connection with the second annual Colorado Inter-State Fair and Exposition.

September 18-October 3.—International Aero nautical Exposition at the Grand Palais, Paris.

September 19.—Road Race at Los Angeles, Cal.

September 19.—Semmering Hill-climb.

September 19.—First annual outing, field and ladies' day of the New York Automobile Trade Athletic Association.

September 20, 21, 22.—Second annual efficiency tour around Long Island, under the auspices of the New York Automobile Trade Association.

September 21.—Stock Car Sweepstakes on Long Island course, under direction of Motor Contest Association, W. J. Morgan, manager.

September 21-23.—Good Roads Convention of the American Automobile Association at Cleveland, Ohio.

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- September 21-29.—Frank A. Munsey reliability tour from Washington to Boston and return.
- September 24-25.— Twenty-four hour race and short distance events, Indianapolis Motor Speedway.
- September 25-October 8.—Aeronautical events in connection with the Hudson-Fulton celebration. New York.
- September 30.—Floral Automobile Parade, under direction of the Washington, D. C., Automobile Club.
- September 30-October 8.—Exhibition of aeronautic motor engines at Paris.
- October 2-17.—Aeronautical Salon in the Grand Palais, Paris, France.
- October 4.—Dirigible balloon and aeroplane events, under the direction of the Aero Club of St. Louis.
- October 7.—Second Annual Stock Chassis Race in Fairmount Park, Philadelphia, under the auspices of the Quaker City Motor Club.
- October 8-o.—National automobile race. Indianapolis Motor Speedway.
- October 16.—Start from Denver, Colo, of the Flag-to-Flag reliability run.
- October 16-31.—Automobile Show, to be held in City Park Armory, Dallas, Texas, in connection with the Texas State Fair.
- November 6 to 13.-National Automobile Show in Auditorium Armory at Atlanta, Ga. Auspices of National Association of Automobile Manufacturers. Samuel A. Miles and Alfred Reeves, managers, 7 East 42nd Street, New York.
- December 20-30.—Fourth Annual Mid-Winter Endurance Contest, under direction of the Quaker City Motor Club.
- December 31-January 7.—New York City, Grand Central Palace; Tenth International Automobile Show. Under management of the American Motor Car Manufacturers' Association with the Importers' Automobile Salon and the Motor and Accessory Manufacturers. Alfred Reeves, general manager, 505 Fifth Avenue, New York City.
- January 8-15.—Tenth Annual National Automobile Show in Madison Square Garden, New York, under the auspices of the Association of Licensed Automobile Manufacturers.
- February 5-12.-Ninth Annual National Automobile Show in Chicago, under the auspices of the National Association of Automobile Manufacturers.
- February 22-26.—Fourth annual Automobile Show in Convention Hall, Kansas City, Mo.

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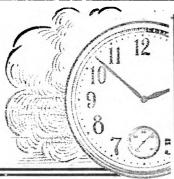
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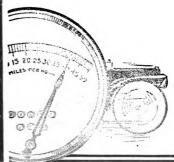
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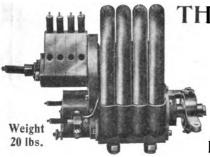
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Mention "Automobile Topics" when writing.

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IF you wish to consult at your leisure the catalogues and price lists of the leading makers of cars, tires, lamps, lubricants, shock absorbers, speed indicators, anti-skidding devices, batteries, ignition apparatus, etc., we will supply them on request. Write our Catalogue Department and we will forward you, postage prepaid, such literature as you may specify, or advise you regarding a choice of cars or accessories. Your name will not be given out, so that you need not fear being over-run with solicitors or circulars. We have on hand catalogues of the following makes of cars:

Babcock
Baker
Buick
Chalmers-Detroit
Columbia
E-M-F.
Fiat
Haynes
Herreshoff
Hudson
Hupmobile
Inter-State
Jewel
Lane
Locomobile

Matheson
Maxwell
Mitchell
Mora
Peerless
Pierce-Arrow
Rambler
Renault
Reo
Stearns
Stevens-Duryea
Studebaker
Thomas

Winton

White

ADDRESS -

AUTOMOBILE TOPICS

103 Park Avenue

New York

RENAULT WINS

Brighton 24-Hour Race

1,050 miles, averaging better than 43¾ miles an hour and beating the nearest of its nine competitors by 112 miles. Its performance, a remarkable exhibition of speed and endurance, was consistent throughout. No repairs, no rebuilding, no mechanical changes whatsoever. At the finish of this first **continuous** 24-hour contest, the car was in perfect condition as when started.

Talk about endurance and durability! This same stock car, 2 years old,

WON 24-hour race, Morris Park, Sept. 6-7, 1907, covering 1,079 miles.

WON 12-hour world's record, Brighton Beach, Oct., 1908, covering 613 miles.

SECOND in Motor Parkway Sweepstakes, 1908—234 miles in 230 minutes.

"The Car Guaranteed for Life"

RENAULT FRERES SELLING BRANCH
Broadway and 57th Street, New York City



"You Screw the Battery In— We've Done the Rest."

If you were an electrical engineer—you'd never let your new Car come to you with Storage Batteries for Reserve Ignition.

You'd certainly prefer a battery set that requires attention



only once or twice in the whole season!—and that's all the

PATTERSON WIRELESS BATTERY SYSTEM

requires. Its fundamental principle is a SCREW TOP BATTERY CELL which, without wires or binding posts, screws into a Solid Hard Rubber Plate, automatically making all connections. This Hard Rubber Plate forms a solid, substantial, waterproof cover for the Battery Box, and as all

Contacts are moulded solid into this Rubber Plate, no possible loose connections, bad contacts, trouble from dampness, or anything of this sort is possible. The Battery Cells are SUSPENDED from the Plate and do not rest on any surface where dampness can collect.

Send for Bulletin T

STANLEY & PATTERSON, 23 Murray St., New York

NOTE.—Battery Cells to fit "PATTERSON" WIRELESS DRY BATTERY HOLDERS are now regularly manufactured by all prominent makers of Dry Cell Batteries throughout the country. When ordering Batteries simply specify that the "PATTERSON" SCREW TOP CELL is required in place of the old Binding Post type of cell.

Do not forget that you can use old style binding post cells if, in an emergency, "screw tops" are not at hand.

THE WORLD'S GREATEST ANNUAL LONG DISTANCE ENDURANCE TESTS

The Glidden Tour in America The Prince Henry Tour in Europe

WERE WON BY CARS EQUIPPED WITH THE BOSCH MAGNETO

We are compelled to publish this by reason of several recent misleading advertisements, giving the impression that other magnetos were used on the winning cars in these contests.

Bosch-equipped cars have been the winners of every running of the Glidden and Prince Henry Tours.

BOSCH MAGNETO COMPANY

223-225 West 46th Street, New York

Chicago Branch: 1253 Michigan Avenue



HOLDER OF

World's 24 Hour Track Record

WINS Big Lowell Stock Chassis Race

318 Miles in 5 Hours 52 Minutes 1 2-5 Seconds

defeating 16 of the best foreign and American cars and finishing more than 21 minutes ahead of nearest competitors.

The Times of Other Cars to Finish Were:

Second, Isotta, 6h. 13m. 37 1-5s. Third, Fiat, 6h. 22m. 21 2-5s. Fourth, Buick, 6h. 25m. 44s. Fifth, Renault, 6h. 36m. 47 2-5s.

The Lowell Victory is only another proof of the unbeatable Simplex speed, reliability and endurance.

1910 MODELS FOR DELIVERY NOW

SIMPLEX AUTOMOBILE CO. 1860-1862 Broadway, New York

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TO OUR READERS

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Babcock Baker Buick Chalmers-Detroit Columbia E-M-F. Fiat Haynes Herreshoff Hudson Hupmobile Inter-State Jewel Lane Locomobile Matheson

Maxwell
Mitchell
Mora
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Rambler
Renault
Reo
Simplex
Stearns
Stevens-Duryea
Studebaker
Thomas
Winton

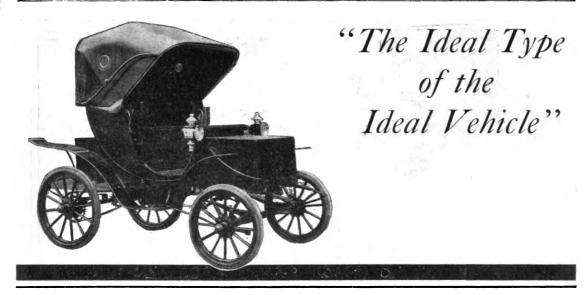
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ADDRESS

AUTOMOBILE TOPICS

103 Park Avenue

New York



Can You Safely Take the Word of 1700?

You want the **best.** So did no less than 1700 in Chicago—1700 men and women of social distinction and wealth. They wanted an Ideal Conveyance. They hunted and searched and sifted—heard argument after argument—claim after claim. But they realized that arguments were good only **as far as they went**—that claims **wouldn't climb hills.** They called for proofs. They purchased

Woods Clectucis

Nearly every manufacturer in Motordom has salesrooms in Chicago with cars on exhibit. Yet 1700 times in Chicago alone Woods Electric won the coveted order. 1700 people were overwhelmed with its proven merits. Will you take the word of the 1700—then investigate for yourself?

Woods Electrics are famous for the ease and certainty with which they "take" hills. In the historical Algonquin hill climb a Woods Electric bested 12 gasoline cars of high horsepower. This is but one of a score of tests in which Woods overcame all obstacles.

But they are something more than stalwart hill climbers. They combine with endurance such beauty and harmony of lines—such magnificence of finish and upholstering that they are a most splendid tribute to the woman of culture and refinement who requires an aristocratic equipage of dignity and elegance.

Woods Electrics are so designed that every part harmonizes with every other part, reducing wear, increasing comfort, saving repair bills, enabling the Woods to stand the hardest knocks of toughest service with no effect whatsoever. They are so simple they require little or no attention—nothing to get out of order—always ready for instant service.

Like a railroad watch, Woods Electrics are reliable-to

be depended on always. Equipped with strongest storage cells made, they reel off 80 to 100 miles—50 miles unconditionally guaranteed, up hill or down—on a single charge.

Speed? 19 miles an hour. Sufficient to infringe on the laws of any town or city on the map. The upkeep cost of Woods Electrics is so small that it sinks into insignificance.

Let us send you still further evidence supporting our claim that Woods Electrics are unassailable—the car for you. Remember every claim made for Woods Electrics is based on achievements.

Send for Catalogue "A." It is full of points on Motordom and contains exact reproductions of letters not only from some of the 1700 in Chicago, but from people elsewhere. Prices \$2100 to \$2700—full equipment.

Exide Batteries used exclusively.

1910 Agency Contracts with guaranteed delivery dates now ready.

WOODS MOTOR VEHICLE COMPANY,

Chicago, Ill.



More Baker Electrics Are Sold Each Year than of All Other Makes Combined

The Baker gives more mileage and greater efficiency, with less trouble and less expense, than any other electric.

Baker Agents have a monoply of the best patronage in their locality.

They have more to offer their customers than dealers handling other electrics---they have no competition.

Because Baker Electrics have more mileage--more speed---more service and longer life---than any other electric, at a lower cost of maintenance.

When you sell a Baker Electric, you sell a car that performs what others "claim"---you sell a car which for years has been

The World's Standard

The car by which all electrics are judged---a car that is built for continuous service---not for "stunts."

A silent performer for every day in the yeara car built by experts in the largest and most upto-date factory in the world, devoted exclusively to the building of electric automobiles.

Lest You Regret

If we are not represented in your city, write at once. Our new 1910 Models include Coupes, Runabouts, Victorias, Broughams, Roadsters, etc.

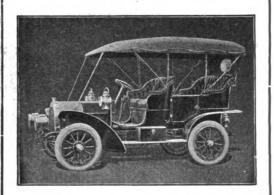
The Baker Motor Vehicle Co.

32 West 80th Street

Cleveland, Ohio

Springfield Metal Body Co.

SPRINGFIELD. MASS.



ALUMINUM LIMOUSINE AND LANDAULET BODIES

We are ready to contract for touring and runabout bodies

AUTO BARGAINS

We are in the midst of our SALE "BETWEEN SEASONS"

and continue to offer

THE BEST

HIGH GRADE 2d Hand CARS

than you would pay elsew

WHILE WORTH OPPORTUNITY

Hundreds of fine cars (all bought for spot cash) are now on our sales floors ready to demonstrate and deliver. We mention a few.

s ready to demonstrate and deliver. We mention a few. 1909 Chalmers "30," 1909 Pope-Hartford, 1909 Thomas, 1909 6-cyl. Puilman, 1909 Packard, Peerless, Oldsmobile Roadster, Pierce-Arrow, Matheson, Winton 6-cyl., Ford, Maxwell, Rainier, Buicks, Mitchell, Locomobile, C. G. V., Panhard, Cadillac, Reo and more than 200 others, too numerous to mention.

Send for Our Bulletin giving prices and description of 300 cars on hand.

WE ARE THE LARGEST DEALERS IN THE WORLD IN NEW AND SECOND-HAND CARS

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Studebaker

Automobiles

If you are of a mechanical turn, the perfect mechanism of the STUDEBAKER will appeal to you.

If you like comfort and luxury, the appointments of the car will strike home.

If you want a car that will take you anywhere and bring you back without the usual road trouble, the reliability of the STUDEBAKER will settle the question for you.

If you are particular about style, you will find genuine beauty in our designs, taste in the minor fittings and a certain individuality that gets far away from the "factory-made" feeling.

We have letters by the dozens from many prominent people who have driven STUDEBAKER cars with perfect satisfaction, over all kinds of roads and in both hemispheres.

We will be glad to let you see what they say about their cars any time you call. Many of them have owned various makes of the highest priced foreign cars—but now swear by the STUDEBAKER.

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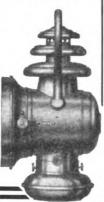
Men who know most about Automobiles buy

SOLAR LAMPS

Motor car designers, builders, dealers and all experienced motorists use Solar Lamps—in fact they insist upon having them simply because they know that every Solar Lamp represents perfection in motor lamp construction.

THE BADGER BRASS MANUFACTURING CO.

two factories: **Kenosha, Wisconsin 437 Eleventh Ave., New York**







Syracuse, N. Y.

September 18

New York State Fair Ass'n

Under the Auspices of

The Automobile Club of Syracuse

AND

The Syracuse Automobile Dealers Ass'n

LIST OF EVENTS

- No. 1.—Motor Cycles. 5 Miles
 - 2.-5 Miles for Gasolene Stock Cars selling at \$1250 and under
 - 3.—5 Mile Free-for-all—any horse power or motive power
 - 4.—5 Miles—open to amateur drivers only
 - 5.—Motor Cycles, 10 Miles
 - 6.—10 Mile Free-for all for Gasolene Stock Cars
 - 7.—Motor Cycles—Pursuit Race
 - 8.—One Mile Time Trials
 - 9.-50 Mile Free-for-all for Gasolene Stock Cars

Best One Mile Track in the Country for Automobile Racing

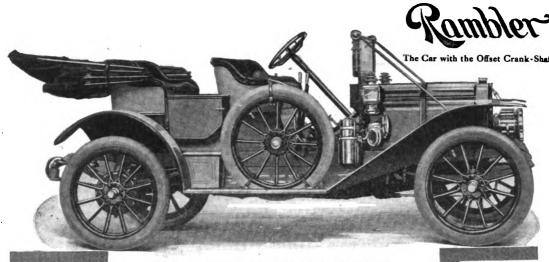
ABSOLUTELY NO DUST

Cash Prizes in all Open Events

Referee: SAM B. STEVENS Starter: F. J. WAGNER

Entry Blanks and full information on application

C. ARTHUR BENJAMIN, Chairman, - - Syracuse, N. Y.



Model Forty-four, Four-Passenger Car, \$2,250.
With Magneto, Lamps, and Tools.

The Four-Passenger Rambler

This Rambler was designed for the man who desires a car with snap and class in appearance and of somewhat lesser weight than the touring model.

Its handy size, weight, and capacity makes it a more convenient "get-about" car.

Because the seats are closer together the occupants can more comfortably visit with each other.

Combined with these advantages is a pleasing individuality that will give the owner justifiable pride and satisfaction in its ownership.

Regularly provided with four individual bucket seats. Plain or individual rear seat optional.

For the time being we can ship this model promptly.

Rambler Automobiles, \$1,150 to \$2,500.

Thomas B. Jeffery & Company

Chicago Branch, 1462-4 Michigan Ave. Rambler Garage Co., 1218-20 Sheridan Road Main Office and Factory: Kenosha, Wis.

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Cleveland, New York, San Francisco

THE CAR OF STEADY SERVICE



Vol. XVIII.

NEW YORK, SEPTEMBER 11, 1909.

No. 23.

TABLE OF CONTENTS	
Scene at the Finishing Point of the Lowell, Mass., Races—Stoecker (Benz) Coming	PA
to the LineFrontispiece	
Topics	15:
Third Twenty-four-hour Race September 24 and 25	153
Spring Lake Races Provide Good Sport	153
Motor Boat Carnival Next Week	15,
Lefebvre Killed in Aeroplane	153
Trellis Garden Effect for Grand Central Palace	153
Drew Spaces for Atlanta Show	153
Manila's Up-to-Date Fire Department	153
175.000 People Witness Wind-up of Lowell Speed Carnival	153
Brescia Aviation Week Begins	15.
Parlin is Star at Wildwood	154
Detroit Dealers Have Sports and Sport	154
Trojans Had Disappointing Race Meet	154
Automobile Topics Touring Supplement-New York to Lake George Tour	154
A Pennsylvanian's Tour in New England	15
Good Roads the Forerunner of Auto Prosperity	155
Opens a School of Aeronautics	15
New Method of Applying Oil Treatment	15:
More Horse-Drawn Vehicles Than Automobiles	156
Mitchell Ranger Shows the Military	
Hazards of Racing on Road and Tracks	
The Present Evil and the Remedy	
Shaft Drive for Alco 1910 Line	
Chalmers-Detroit Line for 1910	
Novel Test for 1910 Ramblers	
Pierce-Arrow Ball Tossers Win	10/
FIGURE AFTOW BRILL 1056F5 WIII.	15/
Details of the \$1,500 Maxwell	157
Peruvian Army After American Cars	157
A Good Plug for Almost Nothing	157
Index to Advertisers	
News Notes	
Incorporations	155
Automobile Calendar	158

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THE AUTOMBILE USERS' WEEKLY

Vol. XVIII.

NEW YORK, SEPTEMBER 11, 1909.

No. 23.

TOPICS

Sufficient has already been disclosed concerning 1910 models to make it plain that the buying public will get better value for

the money than ever before. Naturally, something of this kind was to have been expected; it happens every year, and is the result of greater experience and the ability to reduce manufacturing and selling costs, so that the buyer can be given an advantage. But there has never been so much accomplished as this year. It is true that there are many cars that will undergo no reduction in price, but even they represent better value, for they have been still further refined and improved, until in luxuriance and completeness of appointment they surpass anything heretofore turned out by any makers of equipage. But it is the cheap and moderate-priced cars that most impress the student of the art. They are really marvelous values, and while it would be absurd to contend that more money could not buy better cars, it is beyond doubt that for serviceability and all-around excellence they leave scarcely anything to be desired.

The first aviation fatality recorded for some time was announced in the cable dispatches this week, M. Lefebvre being the unfortunate victim. It is not possible to eliminate danger where aviation is concerned, and it is inevitable that some men should give their lives to advance the art. Yet, considering the number of aviators, especially those taking part in competitions, the number of casualties is very small and indicates that the sport, as at present conducted, is not so very hazardous, after all.

Some ingenuity is required to achieve novelty in the operation of speed traps, yet the authorities of Somerville, a Boston suburb, performed the achievement with something to spare. A trap was set in operation between 10.30 and 12 o'clock at night, flashlights being utilized to obtain the necessary illumination. One motorist who was arrested, and who had his wits about him, claimed that he was traveling at a speed reasonable and safe, considering the unusual late hour, for the street was free from traffic. The matter was held under advisement.

At a recent meeting of the League of Municipalities, held at Marinette, Wis., W. O. Hotchkiss, of the Wisconsin Geological and Natural History Survey, favored a system of State aid to counties in which the spending of the money for road building should be in the hands of the engineering experts and should be kept out of politics entirely. He also advocated city aid to counties, because of their dependency on country trade.

It is said of a certain racing driver that his personality is invested with a "genuine refulgence of spirit." That sort of spirit ought to help him to win races.

Threatened with an investigation of the charge that he advised farmers to place obstructions on the highway as a means of stopping speeding, an Indiana chief of police sent in his resignation. Law breaking, or inciting thereto, should be punished, no matter who the guilty persons may be.

An enemy of automobiles has been found in Ceylon. It is a butterfly which, swarming in untold millions, settle along the road in damp places, and when a car passes they are killed by the thousands. A photograph reproduced in the *Strand Magazine* shows the radiator of a car covered with butterflies, which prevented the air (sic) from cooling the engines and necessitated the car being frequently stopped to remove the obstruction. From this one *might* imagine that radiators are filled with air instead of water.

As a disappointer Orville Wright takes high rank. About 200,000 people assembled on the Tempelhofer Field, near Berlin, Germany, to witness a flight, but Orville decided that the conditions were not right, and declined to start. Commoners count for no more than Congressmen, it seems.

Pasadena has a professional woman chauffeur—or chauffeuse. Her employer is also a woman.

From France a short time ago came the news that a new use had been found for the inner tubes of automobile tires—viz., to take the place of buoys when bathing. On another page we reproduce a bathing scene in which inner tubes figure—and, as photographs, like figures, do not lie, there is no further room for doubt.

The sight of the Emperor William of Germany, and Count Zeppelin, the famous balloonist cheek by jowl, as it were, is an inspiriting one. Patriotism requires that the count be acclaimed for his achievements, and the Kaiser is nothing if not patriotic. But Zeppelin is not the only aviator to be honored by royalty. Glenn H. Curtiss, upon his arrival at Brescia, was apprised of the desire of the King of Italy to meet him, and the meeting is expected to occur.

Strange to say, neither automobiles, motor boats, motor sledges, nor aeronautical craft figure in the latest polar enterprises. That the North Pole should be discovered without the aid of motors—other than the human kind—is difficult to believe. We therefore suspend judgment until proofs are produced.

Third Twenty-four Hour Race September 24 to 25

Ouite content with the improvement over the first event by the second twenty-four hour race at the Brighton Beach (N. Y.) race track, on August 28 and 29, the Motor Racing Association has announced a third contest, to be held September 24 and 25. The latter is the date set for the night pageant of the Hudson-Fulton Celebration, and in order to avoid a conflict it is planned to start the race at 6 o'clock Friday evening, so that the finish of the event will be early Saturday evening. This meet will be the final one promoted this year by the Motor Racing Association.

A signal tower is to be erected at the track side at the head of the homestretch, and cars entering the upper turns will automatically cause the flash

of a danger signal from this tower. upon which no machine will be permitted to leave the paddock until the car in the danger zone has passed beyond the paddock entrance. Red and green electric bulbs are to be strung overhead across the track, opposite the judges' stand, having connection with the signal tower for use after nightfall. No car will then be permitted to enter the track until the green bulbs are flashed. In case of accident on the track the red bulbs are to be exposed as a warning to contestants to drive slowly, the green bulbs being flashed again when the danger has been removed. In the event of a serious accident, for which it is desired to temporarily stop the race, both green and red lights will be flashed.

Spring Lake Races Provide Good Sport

A number of motorists and enthusiasts from surrounding resorts attended an interesting program of races on the beach road course at Spring Lake, N. J., on Labor Day. Thirteen events constituted the card arranged by the Spring Lake Automobile Association, under whose auspices the races were held, and they were all run off successfully. The contestants were confined almost entirely to local residents or members of the summer colony.

The principal performance of the afternoon was that of Washington A. Roebling who, in his 120 hp. Roebling, participated in two races against time. In the one kilometer event Roebling drove his car over the kilometer from a flying start in 30 1-5 seconds, and he completed a mile from a flying start in 52 1-5 seconds. The time made by the Roebling in these events was considerably faster than that made by the other competitors.

Syracuse Dealers and Clubmen to Conduct Races

The Automobile Club of Syracuse and the Syracuse Automobile Dealers' Association will hold their third annual track race meet at the New York State Fair in Syracuse, N. Y., on September 18. The mile track in Syracuse is one of the best in the country, and some excellent sport is assured. Cash prizes are offered in all open events. Entry blanks may be secured from C. Arthur Benja-

min, chairman. Following is the list of events:

No. 1—Motorcycles, 5 miles. No. 2—5 miles for gasolene stock cars selling at \$1.250 and under. No. 3—5-mile free-for-all, any horse-power or motive power. No. 4—5 miles, open to amateur drivers only. No. 5—Motorcycles, 10 miles. No. 6—10-mile free-for-all for gasolene stock cars. No. 7—Motorcycles, pursuit race. No. 8—One-mile time trials. No. 9—50-mile free-for-all for gasolene stock cars.

Motor Boat Carnival Next Week

The event of the year in the motor boat world is the National Motor Boat Carnival, which will be held on the Hudson River, near New York City, September 15 to 18, under the joint auspices of the Motor Boat Club of America and the New York Motor Boat Club. At this meeting the champions in the various classes are decided. This year's event possesses additional interest in view of the fact that a very handsome silver shield will be presented to the club which has the greatest number of entrants and finishers in all events.

The prizes to be awarded the winners in the respective events will be, it is said, the most costly that have ever before been presented for competition in motor boat racing, and the carnival just preceding the motor boat events held in connection with the Hudson-Fulton celebration gives all who enter the carnival an opportunity of also taking part in the Hudson-Fulton events.

The classes are made up as follows: Class A.—High speed boats, 33 feet and under, with time allowance.

Class B.—High speed boats, 12 meters (39.37 feet), without time allowance.

Class C.—High speed boats, 40 feet and over, with time allowance.

Class D.—Pleasure boats, 60 feet and over, with time allowance.

Class E.—Pleasure boats, over 40 feet and under 60 feet, with time allowance.

Class F.—Pleasure boats, 40 feet and under, with time allowance.

Class G.—Open launches, 30 feet and under, with time allowance.

In the long distance race to Peekskill and return for pleasure boats there will be two divisions, namely, all boats 40 feet and over aud all boats under 40 feet, both classes racing on time allowance. In the long distance race to Poughkeepsie and return, for high speed boats, all will race as one class with time allowance.

All entries must be received on or before September 13, by the secretary to the Regatta Committee at his office, room 14, 314 Madison Avenue, New York City.

The Regatta Committee is composed as follows: Charles P. Tower, chairman; Frank D. Sheen, Walter M. Bieling, C. F. Chapman, Morris M. Whitaker, W. B. Rogers, Jr.; Hugh S. Gambel, secretary to the Committee, and Morris M. Whitaker, official measurer.

Lefebvre Killed in Aeroplane

While engaged in testing a new Wright aeroplane at Juvisy-Sur-Orge, France, E. Lefebvre, a French aviator, was killed on Tuesday, September 7. Lefebvre was trying out the machine on behalf of the Aerial Company, which acts as the selling agent for Wright aeroplanes in France. He ascended in a new machine, and for several minutes it flew at a height of about ten yards, when to the horror of the few present, it was seen to dive toward the ground at a rapid rate. When it struck the earth its front part dug deeply into the ground. Lefebvre was found among

the debris on his back, his feet against the motor and his head under a mass of broken wood. He was unconscious. He was transported to the hospital connected with the Juvisy aerodrome, but died soon afterward. The cause of the accident cannot be accounted for.

Lefebvre was 29 years old. He held an engineer's diploma from Lille. He taught himself to fly the Wright machine in Holland. He was fourth in the speed race at Rheims, fourth in the race for the international cup and second in the passenger race.

Trellis Garden Effect for Grand Central Palace

A trellis garden effect has been decided upon as the motif of the Grand Central Palace during the show week next winter, when, beginning New Year's Eve, the Tenth International Automobile Show will be held. This, and the awarding of the contract to Unitt & Wickes, of New York, was definitely decided upon at a recent meeting of the Show Committee, of which R. E. Olds is chairman.

The big Palace will be transformed into a trellis garden. The trellis garden scheme involves a lattice and landscape effect, with myriads of electric lights and huge fire balls to bring out the pictorial scenes and floral designs.

There will be a porte cochere erected outside the building, the same as last year, but the design will be entirely different and in keeping with the interior decorations.

At the back of the main hall will be erected gigantic French glass mirrors,

in front of which will be placed an electric fountain. The trellis garden effect will be carried out in all the decorations, even to the furniture used in the exhibition spaces.

Unitt and Wickes, whose headquarters are in the Lyceum Theater building, New York, is one of the leading decorating concerns in the country. Their latest success was the mammoth roof garden on the Hotel Astor, which is claimed to be the largest and most elaborate in the world. The banquet hall and ball room of the Astor are also the result of their work, and so is the Elysee Cafe room of the Hotel Breslin. Their various success in show work and in hotel decorations have placed them in a rather unique position. Their plans and models indicate a scheme of decorations for the Palace that will be entirely different from anything ever before attempted in connection with automobile shows.

Drew Spaces for Atlanta Show

The drawing for spaces at the show which is to be held in the Auditorium Armory at Atlanta, Ga., November 6-13, was made Wednesday of this week at the headquarters of the N. A. A. M., New York, and sixty manufacturers secured space.

Those who were fortunate enough to secure preferred spaces in the main hall include the Oldsmobile, who secured the first choice, and Maxwell, Mitchell, Dayton, Packard, Pope-Hartford, Cadillac, Woods, Franklin, Stevens, Pierce, Winton and Peerless. Those who drew space in Taft Hall, which is nearly as large as the main hall and located on the main floor in the front part of the building, are Rambler, White, Mora, Premier, Reo, Marion, Ford, Buckeye and Locomobile.

On the mezzanine floor overlooking the main hall are such representative concerns as Marmon, Glide, Dorris, Austin, American, Jackson, Moline, National, Knox, Chalmers-Detroit, Elmore, Stearns, Matheson, Hudson, Babcock and Apperson.

Other cars which will be located in the main part of the building are the Jewel, Speedwell, Hupp, Overland, Cartercar, Brush, Standard, McIntyre, York and Selden. In the basement will be located Columbus, Renault, Sultan, Streator, Fiat, Black, Inter-State, Great Western, Rauch & Lang, Allen-Kingston and Rapid commercial vehicles. The Rapid Motor Vehicle Company, Pontiac, Mich., have taken the largest space allotted to any one concern.

General Managers S. A. Miles and

Alfred Reeves had supervision of the drawing.

Members of the Motor and Accessory Manufacturers will draw for space later in the week.

The show is held just at a time when money is free in the South, as a result of the cotton crop which this year, in the State of Georgia alone, is estimated at 2,000,000 bales, at an average price of \$60 per bale. This means that farmers of that State alone will receive \$120,000,000 for their crops.

The South is fast awakening to the importance of good roads, and in conjunction with the show itself, there will be good road contests and the opening of the big motordrome, on which an

army of laborers are at work now in an effort to be ready for automobile show week. There also will be a contest from New York to Atlanta, and a series of good road contests from the various counties of Georgia, with prizes for the best showing in the line of highways.

The Atlanta show will be the first exhibition of the 1910 models, so that a big attendance of people from the North, as well as the southern population, may be expected during the week's affair in the big city that is known as the "Chicago of the South."

The show is held under the auspices of the National Association of Automobile Manufacturers, with Samuel A. Miles and Alfred Reeves as managers.

Manila's Up-to-Date Fire Department

INDIANAPOLIS. Ind., September 6.— The Fire Department of Manila, P. I, expects to equip several companies with automobile fire apparatus, according to Clarence F. Samuelson, assistant chief of the department, who was in this city last week visiting a manufacturer of such engines. Ten years ago the Manila department consisted of hand-drawn hose carts and one horse-drawn engine. It now has seventeen companies, 220 men, of whom fifty are natives, and expects to adopt modern fire fighting equipment in the shape of automobile engines.

A Winter Tour in France for Small Cars

A reliability trial for small cars, to take place some time during the coming winter, is being organized by L'Auto, of Paris. Each maker will be allowed to enter three cars, which must be of regular stock design, as shown in the current catalogue, and fitted with all the

usual accessories included in the ordinary price of the car. It is proposed that the distance of the event should be 3,000 kiloms, divided into twelve daily stages. All stops and adjustments will be penalized except those due to tires.

Automobiles for Brookline Fire Department

Fire Chief George H. Johnson, of Brookline, Mass., has been provided with an automobile, the first to be employed in the Brookline fire department. The car is stored in a garage specially built for it. Brookline is to have another fire automobile shortly, when a combnation machine, carrying a com-

plete chemical outfit, a 2½-inch hose, two extension ladders and an emergency apparatus will be put into operation.

L. M. Bradley has been selected as manager of publicity for the Atlanta automobile show.

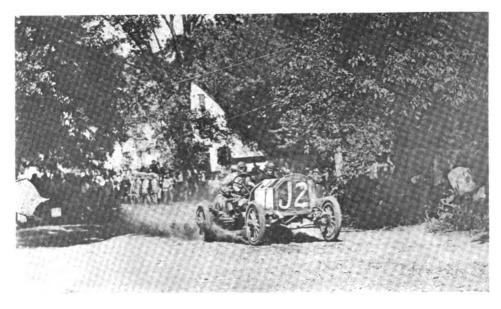
175,000 People Witness Wind-up of Lowell Speed Carnival

Order of	Finish of Lowell Cup Rac	:e
Car	Driver	Time
50 hp. Simplex	George Robertson	5:52:1 2-5
45 hp. Flat	E. H. Parker	0:22:21 2-5
40 hp. Renault	Robert Burman	6:36:47 2-5

Lowell, Mass., Sept. 8.—This town has done itself proud. Beginning with President Heinze, of the Lowell Automobile Club, extending through the membership of that organization, and on through to the townspeople, there has been nothing of consequence left undone to make the meeting a success. Organization has had nearly all to do with it, and with the organization of the three days' speed carnival in capable hands throughout, there was nothing left to worry about but the racing drivers and their cars. They responded nobly and gave the spectators—who numbered well nigh 200,000, and came

from Lowell and the surrounding section—their money's worth. There were thrills and exciting moments in plenty, and racing of an order to cause the blood to tingle and surge through the veins of the most sluggish. And, in spite of the crowds and the ever-present danger of accidents, everything passed off as well as could have been expected. There were no fatalities and the casualties left untouched the drivers, who have been the severest sufferers of recent speed meetings.

The big race of the meet was the contest for the Lowell trophy, decided today, over a 318-mile course, or 30 laps



BURMAN (BUICK), WINNER OF THE VESPER TROPHY, AT THE "S" TURN

of the 10.6-mile circuit. In a race that was closely contested almost to the end, George Robertson, piloting a 50 hp. Simplex, finished first in a field of 17 starters, 5 of whom finished, driving a consistent race and handling his car with remarkable skill and judgment. His time was 5 hours, 52 minutes and 1 2-5 seconds. Al. Poole (60 hp. Isotta-Fraschini) was second in 6.13.37 1-5.

It was estimated by police officials that a crowd of more than 175,000 persons surrounded the course before the big race was started, and the pontoon bridge leading to the course was black with humanity for several hours after the cars had been sent on their way. The weather was ideal and the crowd was a typical carnival one. The long line of booths that had been built on the speedway, did a rushing business, as did the hundreds more located at almost every section of the 10.6 miles course.

Louis Strang, in a Buick, the winner of last year's Lowell race, was scheduled to start first, but on the way to the starting line he struck a telegraph pole and put his car out of commission. Fortyfive minutes after the first car had been sent away, Strang had his machine in condition to start, and was sent away on his chase after the leading cars. After finishing thirteen rounds, however, he had to retire.

Robert Drack, in an American, moved into Strang's place at the start, and at thirty seconds after 10 o'clock Wagner slapped him on the back, the big car shot off down the road, and the 318 mile race for the Lowell cup was on. The race was open to stripped stock chassis, according to the A. A. A. definition, of 451 to 600 cubic inches piston displacement of a minimum weight of 2,400 pounds.

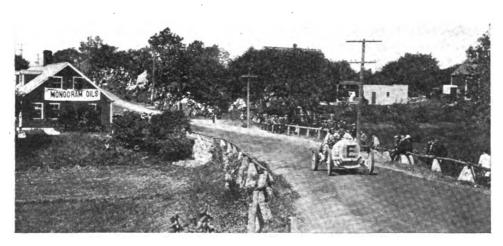
The order of the start, with the driver and name of car was as follows:

Robert Drack	American
Hugh Hughes	Allen-Kingston
Bob Burman	
Harry Grant	Alco
Al Poole	Isotta-Fraschini
E. Parker	
Fred Belcher	Knox
Fred Shaw	Knox
Ralph De Palma	Fiat
Geo. Robertson	Simplex
Joe Downey	Knox
Burt Shaw	. Stoddard-Dayton
Herbert Lytle	Apperson
Louis Chevrolet	Buick
Harry Cobe	Lozier
Chas. Basle	Renault



THE LOWELL TROPHY

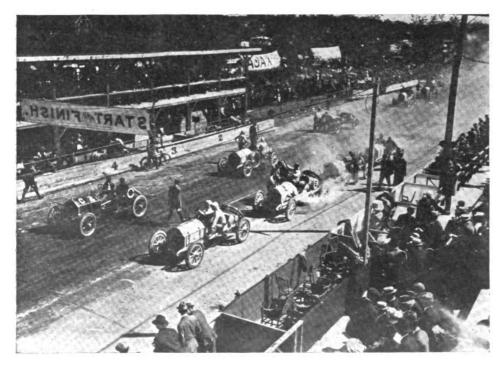
Hardly had Basle and his Renault disappeared from sight before the bugle call announced the approach of a car



STOECKER (BENZ) AT THE "DIP" ON SEPTEMBER 6

coming for the completion of the first lap. Robert Drack, in the American, was the first to cross the line a second

time, and the noise that the hundreds of thousands spectators made as he flashed around the 10.6-mile course was terrific.



START OF THE VESPER TROPHY RACE

Drack's time for the first lap was 10.47, better than a mile a minute. He was followed in rapid succession by Hughes, Burman and Harry Grant. Burman had overhauled Hughes and was in second place. The speed honors for the lap had gone to Louis Chevrolet, in the Buick 17. Chevrolet's time was 10.41 seconds, with Drack, in the American, second in 10.47.

At the end of the second lap Chevrolet continued to lead, while Robertson was running in third place. The American had some trouble on this round and was running in the rear of the procession, but Herbert Lytle, in the Apperson, who had followed Robertson closely on the first round, had made the second lap in 10 minutes 24 seconds, while the Simplex driver had taken 11 minutes 12 seconds. From then on until almost half the contest had been finished the race developed into a struggle between Robertson and Herbert Lytle.

Chevrolet was leading in the third lap, but a broken frame put him out of the running in that circuit. At the end of the seventh lap Robertson led Lytle by just eight seconds, the elapsed time being, Robertson I hour, 15 minutes, 33 seconds, with Lytle's time I hour, 15 minutes, 41 seconds.

Next to the winner, the best race was driven by Harry Grant, in an Alco. the first round Grant and Robertson were tied for third position, with to minutes, 53 seconds for the round. Grant was fifth in the second round. fourth in the third, fourth and fifth rounds, third from sixth to ninth and second from tenth up to the twentyseventh, when he was in first place. When he had almost completed the twenty-eighth round and he had only about twenty-five miles to go, he met with an accident. He was on the backstretch, almost opposite the grand stand, when the right rear tire blew out, and

the car ran off the road and into some sand. One of the chains on the car was broken while it was ploughing through the sand, and Grant had to stop. Finding that the chain could not be repaired without material from the pit, Grant calmly lighted a cigarette and awaited the arrival of help from the Alco camp, which did not come in time.

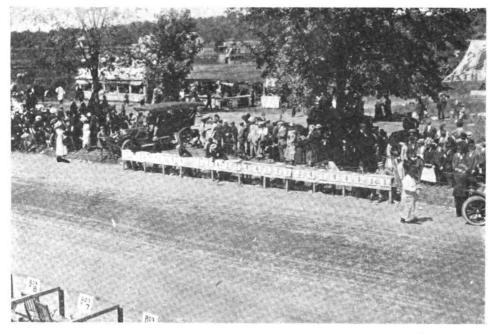
With eight laps gone, Lytle had eight seconds' lead on the Simplex, having covered the 84.8 miles in 86 minutes, 20 seconds. Grant, in the Alco, was not a minute and a half behind the leaders. At the end of the ninth lap Lytle had increased his lead on the Simplex to twenty seconds, while the Alco was still only a minute and a half behind Lytle. At 106 miles Lytle stopped to replenish his water and gasolene supply, and Robertson again went into the lead. Alco also passed the Apperson and was running only seventy-two seconds behind the leader. After refilling his tanks Lytle was again in chase of Robertson and Grant, when his car broke a camshaft and had to be withdrawn from the The Isotta, with Al. Poole driving, moved into third place, while fourth position was occupied by Ralph De Palma in a Fiat.

De Palma moved into third place on the twelfth round, when Poole stopped for water and gasolene. On the foilowing round Grant had gained a little on Robertson, while Poole was again running in third place, De Palma having tire trouble during the round. On the sixteenth round Robertson increased his lead on the Alco, while De Palma was again in third place.

On the twentieth round, or with 212 miles of the race completed, Robertson had a lead of 7 minutes, 52 seconds over Grant, having covered the distance in 223 minutes, 9 seconds. The Fiat was but 10 seconds behind the Alco. At the end of this lap Robertson had to stop to

fill his tank and make a slight repair on his engine. The delay caused him to be but I minute and I second ahead of Grant at the end of the twenty-first round, while the latter was 2 minutes, 8 seconds ahead of De Palma.

Grant set a fast pace during the twenty-third, twenty-fourth and twentyfifth rounds, and gradually reduced thing its own way. The Fiat took the place of the Alco on the twenty-eighth round and was second, with the Isotta third, while the Fiat, driven by Parker, moved up into fourth place. The Simplex finished the race just as De Palma was completing his twenty-ninth lap. It was thought that De Palma would finish in second place, but he met with a



PART OF THE SCORING SYSTEM

Robertson's lead, while De Palma was compelled to fall back a little. On the twenty-seventh round Robertson experienced some tire trouble on the backstretch, and at the end of the circuit Grant was leading by 3 minutes, 24 seconds, having covered the 286 miles in 309 minutes, 58 seconds. It was thought that the Alco had the race clinched, but it was on this round that Grant met with the mishap that put him out of the race.

After the Alco was out of the race, as recorded, the Simplex had every-

mishap on the back-stretch during the last lap, and was out of the race. Poole then finished second, while Parker, in the Fiat, finished third, about three minutes and a half in front of the Buick, driven by Burman. Basle, in a Renault, was the only other car to finish the contest, as the crowd swarmed on the course, necessitating the stopping, of the cars.

The only accidents reported were when the Knox, driven by Fred Belcher, struck a telegraph pole with sufficient force to split the pole from top to bottom, and the Allen-Kingston, driven by Hughes, struck a tree, breaking a rear wheel. No one was injured.

Five of the seventeen starters finished the race, which will go down in automobile history as one of the closest contested affairs ever conducted in this country. Fred Shaw, in a Knox, was on his twenty-ninth round when the race was stopped; Joe Downey, in a Knox, was on his twenty-eighth, and H. H. Cobe, driver of the Lozier, was on his twenty-seventh.

In addition to the sterling silver Lowell trophy, which will go to the Simplex Automobile Company, Robertson will receive a cash prize of \$1,000; Poole will receive \$600, Parker \$300 and Burman \$200. Bonuses from makers of accessories will add to the prizes won by the successful drivers.

Robertson stopped only twice during the race. The first time was at the conclusion of the twentieth round, when he stopped to refill his oil and fuel tanks and radiator. He also changed one tire at that time and lost six and one-half minutes. He stopped again at the end of the twenty-eighth round for more fuel and oil. The fastest round of the race was made by Louis Chevrolet, in one of the Buicks, whose second round was 10 minutes, 33 seconds.

Lowell, Mass., September 6.—Robert Burman, Louis Chevrolet, and William Knipper were the winners of the three events run on the first day of the three-day automobile racing carnival held on the famous Merrimac Valley course in this city this week. The events were run in a sweepstake as the initial day's performance in the American Automobile Association's National Stock Chassis competition under the auspices of the Lowell Automobile Club.

Burman, the winner of the main event, the contest for the Vesper Club trophy, won the race in his class only after Lee Lorimer in a Chalmers-Detroit "Bluebird" was compelled to retire from the contest after leading the field from the start to the eighteenth lap, or for 180.2 miles of a 212-mile race. Burman, from fourth place on the first round, moved into second position on the twelfth circuit of the 10.6 miles course, and finally into first on the retirement of Lorimer. He completed the race in 3 hours 48 minues 8 seconds.

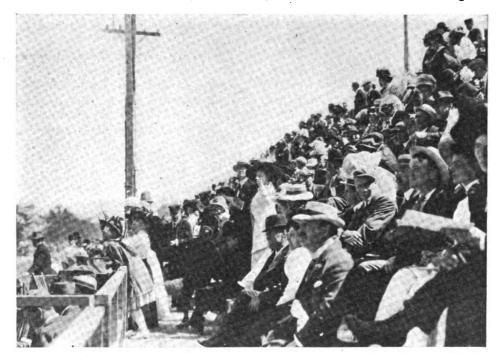
Of the eight starters in this event five finished the race, while another was still running when the event was called off. The Knox driven by Fred Shaw was the first to quit, dropping out on the third round. The other car to drop out of the race was the Chalmers-Detroit driven by Lorimer. Belcher in a Knox was still running when the contest was declared off.

In the contest for the Yorick Club trophy at 159 miles Chevrolet, the winner of the Cobe race, driving a Buick, practically led the field of six from the On the first round the daring Frenchman was in front of the cars competing in his class and he stayed there until the end, completing the 150 miles in 2 hours 56 minutes 17 seconds. The only other car to complete the race was another Buick driven by Ray Harroun, which acted as runner-up to Chevrolet's car from the fourth round on. Harroun finished the long grind in 3 hours 15 minutes 51 seconds. A Mercedes driven by Tom Pepperday was still running when the event was called The Moon retired on the second off. round. The Columbia met with an accident that necessitated its withdrawal on the third circuit, while the Atlas was withdrawn on account of an accident in the fifth lap.

In the event for small cars, a 127 2-10 mile race for the Merrimac Valley trophy, seven of the nine starters finished.

William Knipper drove the Chalmers-Detroit into leading position during the first round, but on the following two circuits he had to act as runner up to his team-mate, Joe Matson. From the fourth lap on Knipper stayed in front of his class and finished fully twelve minutes ahead of his nearest competitor, Arthur See, in a little Maxwell. Another Maxwell, driven by Thomas Cos-

every vantage point along the 10.6 miles of roadway. More than 10,000 gathered near the famous hairpin turn, expecting with the approach of every car to see the occupants thrown from the machine, as it sped around the tortuous curve. "The Dip," Al Poole's hoodo during practice for last year's event, was also surrounded by many thousand spectators, while the stretches and grand



SOME OF THE SPECTATORS

tello, finished third, 4 minutes after its team-mate. The first car to be with-drawn in this class was the Buick driven by De Witt, which met with an accident on the initial round of the course. Another Buick driven by Joseph Grenon was withdrawn on the fourth round.

It was estimated that more than 150,000 persons witnessed the races to-day. This is considerably more than attended the stock chassis race held over the same course last year. The crowd was at

stand had their quota of the enthusiasts. The grand stand did not contain as many spectators as it was expected it would, but although the city is overcrowded with visitors to-night it is expected that many more will be here for the big race of the carnival, the Lowell trophy stock chassis contest, on Wednesday.

Despite the enormous crowd not a serious accident occurred to mar the initial day of racing. There were a number of minor accidents, the worst reported injury being a broken leg. This was sustained by Albert Dennis, mecanicien on the Knox car driven by Fred Shaw in the Vesper Club tropny contest. Three spectators were knocked down and bruised when the Knox car went off the road. A woman was struck by Lorimer's Chalmers-Detroit when the driver lost control of it in the eighteenth round, but she was reported to have escaped serious injury.

Laborers have been working on the course for the past three weeks or more and it was in excellent condition after the slight shower of several days ago. The weather conditions were ideal for an event of the kind run to-day, both from the spectators' standpoint and as far as the contestants were concerned. The race officials had hoped that President Taft would ride over from Beverly in his automobile to occupy the gorgeously decorated box that was arranged for the presidential party, but the Chief Executive did not honor the race with his presence.

The first car was scheduled to be started at 10 o'clock, but it was fully half an hour later before Starter Fred Wagner sent L. B. Lorimer in a Chalmers-Detroit on his long journey. The other cars were sent away at fifteen seconds intervals, and a minute after the last small car had received the signal "Go!" Lorimer was bringing his "Bluebird" around for the first lap. From then until the eighteenth round Lorimer led the field a merry chase. For nearly two hundred miles he was making each circuit at a mile-a-minute clip, driving a remarkably consistent race and then, when victory was apparently within his grasp, he failed to put in an appearance at the finish line on the eighteenth round.

It was about 2 o'clock when disaster overtook Lorimer. He was driving along the backstretch on Varnum Avenue when he suddenly lost control of his car, which dashed off the road, ran between two trees and smashed into a house. In its dash it struck a woman sitting on the lawn in front of the house, breaking her leg. The steering knuckle had been put out of commission in such a way that Lorimer could not control the car. Lorimer and his mecanicien tried to put the car in condition to resume the race, but found it impossible. Neither of them were injured when the car crashed into the house.

On the first round of the race Lorimer was followed across the line by Ernest Stoecker in the Benz. Then came Robert Burman in a Buick. Bert Dingley in a Chalmers-Detroit and Fred Belcher in a Knox crossed the line for the first time close together and fighting for leading position. The Sharp-Arrow and Fred Shaw's Knox brought up the rest of the procession on the first round.

On the second round the Chalmers-Detroit was still leading with another machine of the same make driven by Bert Dingley in second place, Stoecker having moved back into next to last position during the round. Fred Shaw in a Knox was running last, having taken 35 minutes 15 seconds to complete the two rounds. On the following round the first accident in the Vesper class occurred. It was the Knox car driven by Shaw and it was ditched. The mecanicien was thrown and had a leg broken.

The Chalmers-Detroit piloted by Lorimer continued to increase its lead and on the completion of the seventeenth round, was leading by over 9 minutes. The second car was the Buick driven by Burman, and it moved into leading place on the next round when the "Bluebird" driven by Lorimer was withdrawn. On this round the other cars in the race were running in the following positions: Benz, second; Buick, third; Chalmers-Detroit, fourth,

and Sharp-Arrow, fifth. On the following round Dingley passed Strang and from then on the positions were unchanged. During the last lap of the race, Strang and Dingley had a great fight for third position, but the latter held his lead. The Sharp-Arrow, which finished fifth, ran a conservative race throughout.

Billy Knipper was a great favorite

and Ray Harroun. The pair romped away from the other cars in their class and had no difficulty finishing the race leading. The Buicks were being closely pressed by J. J. Coffey in a Columbia, when on the third round the Columbia ran into a telegraph pole and was eliminated from the race.

The Protest Board of the A. A. A. voted to-night not to allow the protest



PRESIDENT HEINZE (AT RIGHT) AND W. C. DURANT, OF THE BUICK CO.

with the crowd. He took the lead in the short distance race, making the first round in 12.40, and for four laps he had a friendly brush with his team-mate, Joe Matson. At the end of the fourth lap Knipper had a lead of only two seconds over Matson, but on the following round, he opened up a commanding lead and held it to the end.

The Yorick Cup race appeared to be especially made for Buick cars, for the only cars to finish of the six starters were the Buicks driven by Chevrolet

of to-day against the Chalmers-Detroit machine. It was alleged the hood was not carried on the machine at all times.

The statement issued by the board was: "It seems that the hood fell from the car on the second lap on one of the curves of the backstretch; that the car did not stop, but proceeded on its way. On the next lap the driver and mecanicien made efforts to locate it, but failed. On the following lap it was discovered in a field, picked up by the driver and mecanicien and replaced on the car.

"The committee, on investigating the case, found that at the place where the hood was dropped it would have been dangerous for the car to have stopped within any reasonable distance.

"The committee also found that the hood was dragged away by boys. It was discovered by an occupant of a nearby camp, who carried it to an open field near the road and placed it in plain sight.

"Taking all matters into consideration, the committee believes the driver used all diligence in trying to locate the hood; therefore the protest is not sustained."

Lowell, September 7.—To-day was devoted to speed tests and trials, and about 10,000 persons witnessed the nine events that comprised the program. Most of the spectators were scattered along the mile straighaway, only 2,000 occupying the grand stand. Although the attendance was not as large as was expected, the events afforded plenty of excitement and amusement for the people.

An improvement over most straight-away events was noticed, as the events of the day were run as races and not simply as time trials. The plan made the events more spectacular, and at the same time served to finish the program more quickly than would have been possible if the competing cars raced only against the watches of the timers.

It was expected that four big racing cars would participate in the day's race, but the big 120 hp. Benz racer, with which Hemery finished second in the Automobile Club of America's Grand Prize race at Savannah last fall, was the only one of the four to make an appearance. Barney Oldfield, who had been piloting the big German racer of late, was at the wheel. It was reported the crank-shaft of Walter Chris-

tie's front wheel direct drive 135 hp. Christie racer was broken, Caleb S. Bragg's 90 hp. Fiat had carburetter trouble, and Lewis Strang's eight-cylinder Buick did not appear.

Barney Oldfield, who met with a mishap when he drove over Merrimac Valley course last year, was the star driver of the day.

Oldfield made two trials against the record. His first trial was 41 seconds, at the rate of 87 miles an hour. His second attempt was 39 9-10 seconds, a trifle better than a rate of 90 miles an hour. The driver of the Benz won the free-for-all race in 51 1-5 seconds, which was said to create an American record for one mile from a standing start. Louis Chevrolet was second in a Buick in 58 9-10 seconds; John J. Coffey was third in a Columbia in 59 9-10 seconds, and Neil Whaley was fourth with a Matheson in 1 minute 3 2-5 seconds.

The first event was scratched because of lack of entrants, and only one car appeared in No. 2, the 40 hp. Jackson; J. R. Willairson was the only man to run a machine in event No. 3. The next event was the first event to have more than one entrant, and the contesting cars were the Apperson (Lytle) and Knox (Shaw). After a false start by the Knox the event was re-run and the Apperson made the best time from a standing start.

Louis Chevrolet, Buick, won the event for stock chassis of 451 to 600 cubic inches displacement in 1 minute 1 3-5 seconds. Fred Belcher in a Knox was second in 1 minute 29-10 seconds. Chevrolet in a Buick, also won the class for stock chassis of 301 to 450 cubic inches displacement in 59 1-2 seconds. Joseph Downey, Knox, was second in 1 minute 1 1-10 seconds, while Fred Belcher in a Knox was third in 1 minute 2 1-10 seconds.

In the event for stock chassis with a

piston displacement of 231 to 300 cubic inches, Arthur Chevrolet defeated his brother, Louis, also in a Buick. Arthur Chevrolet finished the mile in 1 minute 3 seconds, while the winner of the Cobe race was timed at 1 minute 7 seconds. J. J. Coffey in a Columbia was third in 1 minute 12 1-5 sec. Robert Burman in a Buick finished first in the event for stock chassis with piston displacements ranging from 161 to 230 cubic inches. His time was 7 7-10 seconds. De Witt in a Buick was second in 1 minute 8 1-10 seconds.

The last event on the programme was the trials against time from a flying start and Oldfield won in 39 9-10 seconds. Herbert Lytle was second in an Apperson in 44 2-5 seconds. Chevrolet in a Buick was third, Ray Harroun, also in a Buick, was fourth. The summaries:

Class I.—Stock cars selling above \$4.000—50 hp. Apperson (Lytle) first, time 52.4-5 sec.; 40 hp. Knox (Belcher) second, time 55 3-10 sec.

Class 3.—Stock cars selling at \$2,001 to \$3,000—Won by 50 hp. Matheson (Whales), time 1.021-5.

Class 4.—Gasolene stock cars selling

from \$1,251 to \$2,000—Won by 40 hp. Jackson (Blake), time 1.03 4-5.

Free-For-All.—Standing start—Won by 120 hp. Benz (Oldfield), time 51 I-5 sec.; second, 35 hp. Buick (Chevrolet), 589-10 sec.; third, 34 hp. Columbia (Coffey). 599-10 seconds; fourth, 50 hp. Matheson (Whales), 1.03 2-5.

Class 1.—Stock chassis, 451 to 600 cubic inches—Won by Buick (Chevrolet), time 1.03 3-5; second, Knox (Belcher), 1.02 9-10.

Class 2.—Stock chassis, 301 to 450 cubic inches—Won by Buick (Chevrolet), time 59 5-10 sec.; second, Knox (Downey), 1.01 1-10; third, Knox (Belcher), 1.02 1-10.

Class 3.—Stock chassis, 231 to 300 cubic inches—Won by Buick (A. Chevrolet), time 1.03; second. Buick (L. Chevrolet), 1.07; third, Columbia (Coffey), 1.121-5.

Class 4.—Stock chassis, 161 to 230 cubic inches—Won by Buick (Burman), time 1.07 7-10; second, Buick (De Witt), 1.08 1-10.

Class 4.—Stock chassis, 161 to 230 cubic inches—Won by Buick (Burman), time 1.07 7-10; second, Buick (De Witt), 1.08 1-10.

Time Trials.—Flying start—Won by Benz (Oldfield), time 39 9-10 sec.; second, Apperson (Lytle), 44 2-5 sec.; third, Buick (Chevrolet). 49 9-10 sec.; fourth, Buick (Harroun), 52 1-5 sec.; fifth, Knox (Disbrow). 57 7-10 sec.



A DIVERSION AT EUROPEAN BATHING RESORTS-INNER TUBES AS BUOYS

Brescia Aviation Week Begins

The aviation meet at Brescia, Italy, opned on Wednesday, September 8, and the initial day was marked by few flights and several accidents. Louis Bleriot's machine collided with a tree and the propeller was broken. Anzani also broke the propeller of his machine in a test flight, while Lieut. Calderara came

to grief in a Wright machine. The aeroplane tilted so violently that in an effort to bring it on an even keel again the rudder runner was smashed.

A number of aviators attempted to make flights, but with the exception of Glenn Curtiss and Bleriot they were unsuccessful.

What Topeka Considers Careless Driving

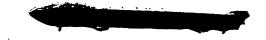
The automobile board of examiners of Topeka, Kan., recently held a meeting at which a number of prospective chauffeurs were examined as to the fitness to drive cars about the city. At the meeting the board declared that it would

consider it careless driving for a driver to lie back on the seat with feet on the dashboard while driving a car, or to turn the head toward the rear seat and engage in conversation while the car was in motion.

Aviation Show at Madison Square Garden

Madison Square Garden will be the scene of the first National Aeronautical Exposition, from Septebmer 25 to October 2. The exposition will be held in conjunction with the Business Show,

and as a number of aviators will be in the city then, participating in the Hudson-Fulton areial competitions, it is expected they will make the Garden their headquarters.





COUNT ZEPPELIN'S FLIGHT OVER BERLIN

Parlin Is Star at Wildwood

Despite the high wind, fast time was made by several of the cars competing in the initial meet of the North Wildwood (N. J.) Automobile Club on the Central Avenue Speedway at Wildwood, on Labor Day, September 6, although none of the cars came within striking distance of the record of 41 seconds, made by Len Zengle in the Chadwick on July 5.

An added starter, a six-cylinder Parlin, driven by J. W. Parlin, Jr., captured the two big events on the program, the free-for-all and the time trials. Willie Haupt in an Alco acted as runner-up to the Parlin in both events. In the free-for-all Parlin completed the mile in 55 1-5 seconds. Paxson in a Cadillac finished third. The time trials were won by Parlin in 52 4-5 seconds, while Haupt was timed at 54 1-5 seconds. Holshauer in a Packard was third in 1 minute flat.

It was estimated that fully 20,000 persons lined the course, while the races were being run. Except for inadequate policeing, the meet was well managed, and an interesting afternoon's sport resulted. The meet was remarkable for the number of privately owned cars that competed.

In the first event for cars costing under \$1,250, Jackson in a Mitchell won in 1 minute 18 seconds. Hunter in an Overland was second, while Bloch in a Ford was third. The second event was won by a Cadillac driven by Paxson, while Mitchell cars finished second and third. In a special match between a Pullman driven by Brown and an Overland piloted by Hunter the former was the victor, completing the mile in 1 minute 11 4-5 seconds.

Walter Goerke driving a 7 hp. Indian motorcycle reduced his own record for the course, made on August 21, by 1 3-5 seconds, when he completed the

mile in 43 2-3 seconds. This time was made with the start being made at the Wildwood end of the course and the finish at Anglesea. This was done because of the high wind blowing during the afternoon.

The summary:

Event No. 1.—For cars costing \$1,250 and under—Won by Mitchell (Jackson); second, Overland (Hunter); third, Ford (Bloch); time, 1.18.

Event No. 2.—For cars costing from \$1,251 to \$2,000—Won by Cadillac (Paxton); second, Mitchell (Cram); third, Mitchell (Parkin). Time, 1.10.

Event No. 3.—For cars costing from \$2.000 to \$3,000—Won by Packard (Parkin); second, Packard (Meeley). Time, 1.5 3-5.

Event No. 4.—Won by Peerless (Nimmo); second, Acme (Bohn); third, Packard (Beck). Time, 1.8.

Event No. 5.—Special event—Won by Packard (Beck); second, Mitchell (Parkin); third, Ford (Bloch). Time, 1.23.

Event No. 6.—Free-for-all—Won by Packard (Parkin); second, Alco (Haupt); third, Cadillac (Paxson). Time, 55 1-5 sec.

Event No. 7.—Special match race—Won by Pullman (Brown); second, Overland (Hunter). Time, 1.114-5.

Time Trials.—Won by Packard (Parkin); time 544-5 sec. Second, Alco (Haupt). 541-5 sec.; third, Packard (Holzhauer), 1 min.

Curtiss to Reach New York September 21

In a cablegram sent last week Cortlandt Field Bishop apprised the Aero Club of America that Glenn H. Curtiss, who won the international trophy at Rheims, would arrive in New York on the Kaiser, September 21. The club immediately cabled Mr. Curtiss advising him that a luncheon has been arranged in his honor and with his approval the date would be fixed for September 22.

A delegation composed of officials from the club will meet Mr. Curtiss at the pier.

Detroit Delears Have Sports and Sport

The Detroit Automobile Dealers' Association held an interesting gymkhana and speed meet at the Michigan State Fair grounds, on September 4. The program was made up of eight events and they were all run successfully and without accident. The main event of the day was the three-mile match race between the Brush and Maxwell \$550 cars. Paul McKenne, driving his little grey Brush, was an easy winner over Moran in the small Maxwell.

The first event was a two-mile affair for touring cars carrying four passengers and a driver. The participants started alone and were compelled to pick up a crew of four at the quartermile post, unloading again at the tape and reloading with a fresh crew. Charlie Grant in a Chalmers-Detroit "30" was the first to finish out of a field of four.

The quarter-mile obstacle race was won by W. Remb in a Hudson. lander in a Brush was second. winner's time was I minute 7 seconds. Moran in a Maxwell won the price offered the driver of the car completing a circuit of the track nearest to fifteen miles an hour, when, without a speedometer or other timing device, he crossed the line in the exact time. Billy Lamb in a Peerless finished the eight-mile an hour in exact time. Schneider in a big White Steamer won the fifth of a mile forward and backward race. The driver was required to speed to the fifth-mile post, turn about and return to the tape. The time was 53 4-5 seconds.

The match race was won by the Brush in 55 2-5 seconds. The last event, the two-mile D. A. D. A. relay was won by Bemb in a Hudson, with Neidlander second in a Brush. Time, 3.04.

Trojans Had Disappointing Race Meet

The race meet held at Rensselaer Park, Troy, N. Y., on Thursday, September 2 did not prove the success it was expected to be, and a number of motorists from Troy and the surrounding country who visited the scene of the meet went away disappointed. It was advertised that a number of star drivers and cars would participate in the events, but on the day of the races Barney Oldfield in his big Benz racer was the only one of note to appear.

The first event of the day was a two-mile exhibition by Charles Bowers in his 90 hp. Peerless Red Devil. Bowers covered the first mile in 1 minute 18 3-5 seconds, and the two miles were completed in 2.37 2-5. Fred Preston and C. W. West, both in Buick cars had a five-mile race and the latter had no difficulty in winning in 6 minutes 59 1-5 seconds.

It was expected that Oldfield would race his machine against Lewis Strang, but on the non-appearance of the latter a two-mile exhibition was given by Oldfield. He completed four circuits of the two-lap track in 2 minutes 172-5 seconds. The twenty-five mile exhibition of Bowers in the Red Devil was spoiled on the eighth mile, when his car developed ignition trouble. The car was repaired, but Bowers experienced more trouble with his spark plug and finished the twenty-five miles with only three cylinders working.

Prince of Track Boomers at Providence

John S. Prince, who is indeed a prince of race track boomers, is preparing to lease the Narragansett Park track at Providence and convert it into an automobile speedway.

Automobile Topics Tour

A CLEAN SWEEP

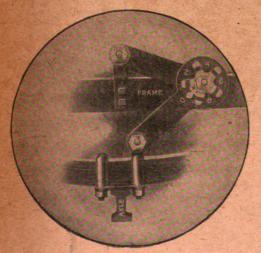
The National Stock Chassis Race at Lowell
The Vesper Club Trophy Race at Lowell
The Three Trophies of the Glidden Tour
were won by cars equipped with the celebrated

TRUFFAULT-HARTFORD SHOCK ABSORBER

"THE STANDARD OF THE WORLD"

- 1. The Simplex (Robertson) Wins the Lowell Cup
- 2. The Buick (Burman) Wins the Vesper Cup
- 3. The Pierce-Arrow Wins the Glidden Trophy
- 4. The Pierce-Arrow Wins the Hower Trophy
- 5. The Chalmers-Detroit Wins the Detroit Trophy

All were equipped with Truffault-Hartford Shock Absorber



The rough roads that racked the other cars did not affect these winners. Spring troubles and sprung axles were unknown.

No Car Has Ever Won The Glidden Tour

That Was Not Truffault-Hartford Equipped

When automobile manufacturers enter their cars in contests where their reputation as builders rests upon the performance of their machines, there you will find the Truffault-Hartford Shock Absorber as part of the equipment. That is the point we want to emphasize—that this Shock Absorber is not an accessory, but a proven necessity. The results of the races at Lowell add to the already splendid reputation of the Truffault-Hartford Shock Absorber, which has many victories to its credit.

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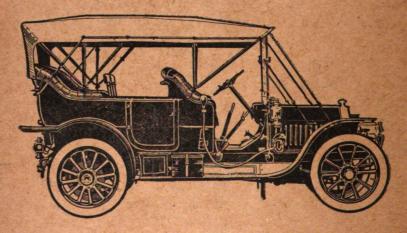
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A Pennsylvanian's Tour in New England

By Donald McCaskey, M. D.

Of all the communities highly attractive to the automobilist for a summer visit, perhaps the New England States contain most that will charm and interest. Within the boundaries of these six small States there is so much of scenic beauty, of magnificent roadways, of invigorating atmosphere, of hospitable people and historic romance that the tourist who visits New England becomes enthusiastic whether he travels on a few days' tour through its borders or several months.

There are many routes by which one may see these States, each having its share of varied scenery, of mountain and seashore, with the attendant panorama of stream, lake, forest, and rugged seacoast. Along almost any route the tourist may travel, he will find that most desirable feature of an enjoyable trip—a first class hotel. These abound through the New England States. One is always assured of hos-

pitable attention, a clean bedroom, and an inviting menu at the dining table.

The Berkshire Hills, in the western part of Connecticut and Massachusetts. become a regular pilgrimage route for the automobilist who enjoys the magnificence of scenic grandeur. While the roads leading over the crests of the Berkshires are not all that can be desired, yet the highway approaches that lead to the mountains from all sections are strictly first class in every particular. New England has the finest network of high grade macadamized roadway of any community in the United States. What the roads lack, however, in a tour over the crests of the Berkshires, is made up by the beauty of the everchanging panorama of scenery. Thickly wooded hill and dale, inspiring stretches of valley, stream and lake are unfolded as one winds in and out, up and down, in his course through the hills. The wealth of forest green and



ON THE MAINE COAST, NEAR YORK BEACH

exhilirating air is disturbed only by the ceaseless noise of the tourist as his car labors along the mountain roads.

When the Berkshire Hills are left to the westward and the tourist pushes on to Boston, there are miles and miles of macadam road over which to travel. Common sense restrictions are enforced regarding automobile speed, particularly in the towns along the route; but in the open country the automobilist is granted carte blanche to travel at whatever speed he likes. All the New England States extend the interchangeable license courtesy, and a tourist with a New York license is granted the same privilege of touring New England, as if he possessed a license for one of the New England States. A Pennsylvania license is not good here.

Portland, Me., is another Mecca for tourists, and although to reach this thriving metropolis much sand must be negotiated, yet the piney woods of this big State are so vast and their solitudes so eloquent that the tourist finds much to add to the enjoyment of his visit to Maine. For many miles along the Maine coast there is a road leading through a score or more of pleasure resorts, that wind in and out along the cliffs of this rugged coast at the very water's edge of the wild sea as it beats and dashes against the rocks.

The New England seacoast is the land of the lobster, and at no inn can a tourist enjoy this delectable food (if he is favored with a sturdy digestion) better than at Rockingham Inn, in the historic old town of Portsmouth, New Hampshire. Portsmouth, like Portland, is favored by fine harbor advantages. The United States government has one of its foremost ship-building yards located here.

As in France all roads leads to Paris, so in New England all roads center in Boston, with its Faneuil Hall, its green

and inviting Common, its harbor of Boston Tea Party fame, and its sturdy old State House, the seat of many an act in Revolutionary times that has helped to change the world's history. Boston is rightly called the Hub, for there is no town through which an automobile may travel that has narrower, more winding or more crowded streets; that has so many roadways radiating from it, or that is so difficult to find one's way about in. It is practically impossible to determine where Boston begins and ends, so closely do its suburbs dovetail into its borders.

The little town of Concord is another automobile tourists' Mecca. Here can be seen the site where the sturdy minute man performed his immediate duty to his country. As described by Emerson, on the statue erected to the memory of these minute men:

By the rude bridge that arched the flood,
Their flag to April's breeze unfurled,
Here once the embattled farmers stood,
And fired the shot heard round the
world.

In the town of Concord also stands Wright's tavern, where General Pitcairn, of the English forces, made his famous boast over his glass of liquor that he would soon make it warm for the Yankees and teach them a lesson. But the Yankees taught him.

The shore route, running along the water's edge of Long Island Sound, takes the tourist through many quaint and picturesque scenes. Ferries are crossed, bridges traversed, and good roads of a high order are the rule. Newport and Narragansett Pier, New London and New Rochelle, and their connecting sections of country all have their particular charm, and by the end of a tour through the States of New England one is impressed more than ever with the beauty and importance of this section of country.

Good Roads the Forerunner of Auto Prosperity

CLEVELAND, O., Sept., 7.—"Millions for good roads—that is the slogan in the West and Middle West," says O. B. Henderson, sales manager of the Baker Motor Vehicle Co., who has just returned from a two-months' tour of those sections. "The coast, especially, is going in for motoring stronger than ever.

"Why, one county alone, in California, has appropriated over a million dollars for improved roads. The cities are building boulevards. Seattle is spending a mint of money cutting down her hills. Improvement is going on everywhere.

"It's a prophecy wise dealers are heeding. Modern, substantial garages are being built in all automobile centers. Foresighted business men are rushing to secure agencies in cities the good roads movement is opening up.

"Next year is going to be the biggest, by a wide margin, in the history of the trade.

"I find the demand for electrics growing by leaps and bounds. I found elec-

trics in many places where, a year ago, not one was in use.

"City men, everywhere, are realizing that the electric has a field of its own that in no way interferes with that of the gasolene car. The electric is now recognized as the very thing for family use.

Women find it ideal for all purposes, while men accept it as the best machine for business use.

"The most interesting development of 1909 is the introduction of the gasolene automobile as an every-day factor of farm life in the Midle West. Farmers out there are driving about their fields, making neighborhood calls and traveling to and from town, to the tune of the chugging gasolene engine, just as they used to do to the click of the horse's hoofs.

"The return of prosperity with the immense crop yield of 1909, and the opening up of new fields for trade by the good roads movement, is going to make 1910 a bonanza year for automobiles."

Californian Discovers a Storage Battery Marvel

Heralded as being second only to Thomas A. Edison's promised storage battery for electric vehicles is the invention of Professor John J. Montgomery of Santa Clara, Cal., who has applied for a patent on a device by means of which storage batteries can be charged with the common low voltage currents used in resistance.

The invention is more particularly useful for users of automobiles and power boats driven by electricity, but is almost a necessity for all users of storage batteries, it is said.

Owners of electric automobiles are at present forced to seek a garage which possesses a mercury rectifier, which costs something like \$200. It is, moreover, very delicate, and the expansion of the globe under the influence of its own heat often breaks the glass, rendering it useless. Hence few garages have rectifiers, continues the story.

Professor Montgomery's apparatus may be attached to an electric lighting wire anywhere at night, and in the morning the car will be ready for use. The charging current may be turned on whenever the car is not in use.

Professor Montgomery is instructor of electrical engineering at Santa Clara College and was experimenting with wireless telegraph and telephone apparatus in the college laboratories when he discovered the value of a portion of the instrument for recharging batteries.

Opens a School of Aeronautics

Mindful of its success in starting an automobile school years ago, when the industry was still very young, the West Side Young Men's Christian Association (New York City) will, on October 13, open an evening course in aeronautics under the direction of Wilbur R. Kimball, the well known electrical expert and practical aeronaut. It is designed to meet the rapidly growing demand for men trained to build, repair and operate aeroplanes and dirigible balloons, and also to prepare others for the sport of flying.

The School of Aeronautics owes its existence to the experimental or test course of lectures given at the West Side Branch last spring by Cortlandt Field Bishop, president of the Aero Club of America; Augustus Post, secretary Aero Club; Winthrop E. Scarritt, former president of the Automobile Club of America and others. The interest shown in these lectures indicated that there was a real demand for aerial training even though, at that time, the Wrights had not made their wonderful flights and Bleriot had not crossed the Channel.

"The successful flights Wrights, Bleriot, Curtiss, Count Zeppelin, Dumont, Delagrange, Farman and others have demonstrated the practical possibilities of aero-navigation. Men with personal knowledge," says the announcement of the school, "of aero science are in demand." The armies of the great nations are striving to develop aerial machines which shall become effective engines of war. Scores of amateurs are entering the air as a means of recreation and need assistants. Professionals are at work everywhere devising new and better mechanisms. Experts declare that it is now only a question of time when flying machines will be commercially practicable and used regularly to transport and carry the mails. This coming demand has already been foreseen by the pattern makers who are preparing for work in the aeroplane field.

The first course of study is designed to prepare owners and prospective owners for participation in, and enjoyment of aerial sport; to train aero chauffeurs and mechanics in the principles of aeroplane management; to teach practical men the principles of construction; to aid civil and mechanical engineers who wish to learn the applications of their science to flight and to prepare writers, newspaper men, advertising men and sales men to specialize in the new field.

The outline of the course of study which ten years ago would have been regarded as the dream of a crank, is as follows:

Law of Gases.—Buoyancy, action under varying temperatures and pressures; the atmosphere, hydrogen; motion; air currents; use of barometer, thermometer, manometer, statoscope, etc.

Resistance and Supporting Power of the Air.—Laws of motion and application of force; parallelogram of forces.

Shapes of Surfaces.—Planes; curves; solids (square, round, fish shape); use of each; head resistance.

Kites.—Malay, Hargrave, Tetrahedral,

Lift and Drift.—Mathematical relationship between the two; simple rules for determining ratio between sustaining and propelling elements.

Soaring and Gliding Flight.—Ways of birds in the air; some historical gliding machines and their records.

Screw Propellers.—Ratio of thrust and torque; proportions determined by work to be performed; number of blades, pitch, speed.

Motive Power.—Steam vs. gas power; size, weight and performance of practicable types of motors; fuel consumption.

Power Driven Models.—Actual demonstrations of working models of aeroplanes, helicopters and vibrating wing machines; designs of various types.

Man-Carrying Apparatus.—Working dimensions of apparatus capable of sustaining man; materials used; strength necessary as shown by tables; arrangement and adaptation of various parts; general data.

Superposing Surfaces.—Copmarisons between monoplane and biplane.

Equilibrium.—Varying conditions of atmosphere due to whirlwinds and irregular currents; compensation for advancing center of pressure.

Control.—Steering apparatus of various forms; means of control rudder, auxiliary planes, etc.

Transmission Systems.—Direct connection; gearing; chain drive; cable and flexible shafting.

Dirigible Balloons.—Size and material of envelope; gas system of suspension and application of power; problems of steering and equilibrium.

No attempt will be made in the first course of ten evening lectures and demonstrations to give students actual flying practice, though this phase of instruction may develop later. There will, however, be ample work in flying models and in constructing miniature planes of various types. For experiment with models, the big athletic field adjoining the building at 57th Street and Eighth Avenue will make an admirable model aerodrome in the heart of Manhattan. It is probable that a number of contests between various models will be held in this field. In addition the students wi'l study gas practice in the automobile and motor boat school testing laboratories, and will be taken to various flights in nearby aerodromes.

The purpose of the school of aeronautics as described by Edward L. Wertheim, the Educational Director, is to fit men for the coming industry connected with the building and handling of aerial machines.

"A new industry," said Mr. Wertheim, "is rapidly being created, and just as the automobile brought employment and wealth to hundreds of thousands who were wise enough to fit themselves for that industry, aerial navigation now

promises great rewards to those with foresight enough to prepare themselves for its several branches. It seems fitting that the West Side Y. M. C. A., which was one of the pioneers in training men for automobile instruction and motor boat management, should enter this new gasolene propulsion field. Our fully equipped automobile and motor boat shops and laboratories, with many types of gas engines and appliances, make the task of dealing with aero engines simpler, as the application of gas to the light aerial motors is parallel to its use as power in automobile engines.

We have trained more than three thousand owners, chauffeurs, salesmen and mechanics to operate machines on the road or the water. We hope to do a similar service for owners, prospective owners, aviators, mechanics and others who wish to enjoy or work with flying machines. How far our work can extend in this field will depend largely on the support we receive from the great aero organizations. Our automobile school to-day owes its success to the important grants of funds made to it in its infancy by the Automobile Club of America. For these gasolene schools are expensive, because of the varied equipment required and the nature of instruction to operate. There are, however, indications that some of the great aerial enthusiasts will aid this school to become in the aerial field what our other schools are in their industries."

Salvation Army Gives Auto Outing

Nearly 400 women and children were taken for an automobile ride from Chicago to Glen Ellyn, Ill., on August 26, as guests of the Chicago Salvation Army. The automobiles used for the occasion were donated by philanthropic owners. The Salvation Army's summer camp is situated at Glen Ellyn.

New Method of Applying Oil Treatment

Demonstrations of a new road oil sprayer in which the Standard Oil Company is interested, are being given by inspectors of that concern. At Plainfield, N. J., this week several demonstrations were made in order to show how the process of sprinkling the streets with oil can be accomplished without the objectionable features attendant upon methods heretofore employed.

The main feature of the demonstration is the new method of applying the oil so that the road bed is not sticky and there is no tracking of the oil into the house or upon the sidewalks as is the case when oil is sprinkled from the primitive sprinkling wagon.

By the method shown the oil is seut out of the oil tank under high pressure, something after the manner of an atomizer, which drives the oil into the ground instead of leaving it all on the surface. This has the effect of keeping the dust down without the necessity of flooding the surface. One or two applications during a season, it is said, will be sufficient, and while the treatment has to be repeated oftener than when the street is flooded, the objectionable results are eliminated.

The apparatus used in the sprinkling is an automobile truck which uses the same power to fill its tank and to distribute the oil on the road as is used in driving the machine. The machine when at work travels at ten to fifteen miles an hour.

At once after the application the street can be used without any danger of case when oil is prinkled from the primi-

How to Preserve the Paint

How to retain the original beautiful lustre of his automobile is a question that interests every motorist, for the owner of a car is usually very finicky about its appearance. The problem is equally important to the garage keeper and the automobile dealer who has facilities for storing his customers' machines.

Some automobilists complain that the use of soap has resulted in the streaking and marring of the painted surface of their cars. Edward C. Huhn, of Philadelphia, who has made a study of the subject of keeping motor cars in a perennial condition of newness, says that the paint on an automobile can be preserved indefinitely if the soap is dissolved and applied in semi-liquid form instead of in its raw state. He adds that it is always the part of wisdom to take the precaution, although the product he handles is neutral, and even the most careless application of the soap

will not cause any injury to the most highly polished surface. On account of this virtue it has been christened the "fool-proof soap."

In large garage and automobile concerns, where the washing of cars is an important part of each day's work, much unnecessary expense is incurred through a mistaken idea of the means required to get the lather to a proper consistency. Employes of these establishments, as well as owners who wash their own cars, act on the assumption that it is necessary to use a large piece or soap on a sponge to get the desired lather. Mr. Huhn suggests that a better and decidedly more economical method is to dissolve twenty pounds of soap in twenty-five gallons of water, and to use this solution with water as occasion demands. He figures that a saving of 25 per cent, will result in the soap bills of these garages and automobile companies.

PREVENTIVES AND REMEDIES

Compression leakage past the valves of a gasolene motor has its origin in a variety of causes, some of which are due to features of valve construction, as warping, following the use of inferior material; defective design; lack of even distribution of the cooling medium, and when the water jacket is shut off for a part of the way around the valve seat. A second cause of leakage is due to grinding in the valve, thus reducing the clearance between the valve stem and the lift; the valve cannot seat properly after the interference, and it will be necessary to adjust the lift enough to allow the cam to rotate for a complete revolution, without disturbing the valve on its seat; the usual practice is to allow a clearance between the valve stem and the lift, the amount of the clearance being variable, depending upon the diameter of the roller and the shape of the cam. There is also the question of weak springs to contend with, and in such cases deposits of carbon are likely to settle on the seat, and prevent the valve from seating properly; new, strong springs will cure this trouble.

The caps of rotators occasionally stick, owing to the expansion of the threaded rings on which they screw. It will generally be found that they only stick when hot, and that they are unscrewed easily when cold. The time to refill the radiator, therefore, is before rather than at the end of a run. If, however, refilling is necessary when hot, e. g., after a stiff hill-climb, the simplest plan is to cool the top of the radiator and the base of the ring under the cap by pouring water theron.

Any unusual noise about a car should cause the driver to stop instantly. If no apparent cause can be found a thorough examination of the springs and the steering should be made before going on. Even then cautious driving should be the rule.

A battered and dented radiator, although it may not leak, is a great disfigurement to a car. In some cases it may be necessary to unsolder the casing in order to get at the back of the damaged portion, but very often this is quite unnecessary. The following method may be tried when the po-

sition and nature of the dent suggests that it would be feasible. Remove the radiator and place it so that the damaged portion is in a horizontal position, and next carefully "tin" the dent with a soldering iron in the usual way. Over this must be soldered a piece of thick sheet brass, into which a strong hook or eye has been previously fastened. If the soldering has been properly done, it will be possible to draw out the dented portion by pulling the hook until it is flush, or even bulges slightly from the surrounding casing. All that then remains to be done is to unsolder the piece of brass with the hook attached, and to remove the adhering coating of solder from the place where the dent was. To remove all traces of solder without leaving scratches in the brass casing, a file should not be used. While the surface is still hot enough to cause the solder to remain liquid, the latter may be nearly all wiped away with a cloth, only a very thin coating remaining to be dealt with. If there are no lumps at all, a little emery cloth of medium grit will soon cause all traces of tinning to disappear, when the final polishing can be continued with fine emery cloth, and afterwards by means of polishing paste. Should, however, it happen that the solder is of any material thick ness, the quickest way to remove it (other than by reheating and wiping) without leaving scratches, is by means of a scraper.

The maintainence of the correct pressure in tires seldom receives the attention it deserves. It is really impossible to secure the best results unless the tire pump is provided with a gauge in good working order. No hard and fast rule can be laid down for the pressure per square inch to be pumped in-so much depends on the size of the tires, and the weight of the car, as well as the make of the tires. From 70 lbs. to 90 lbs. per square inch may be accepted as the average pressure necessary. There should be no decided bulging of that portion of the tire in contact with the ground; and if on forcing the wheel sideways, by pushing the upper part, the under part is observed to sway, it is a sign of insufficient pressure.

C L U B S

The Chicago Automobile Club has been doing all in its power of late to minimize speeding on the country highways, and apparently these efforts have been effective. "Along the north shore, where violations of the speed laws were rather frequent before the club began its crusade, everything seems rosy," says W. W. Crawford, assistant secretary of the club. "About the only complaint we have received of late has been from a bad crossing in Evanston, and that was from a motorist rather than from a pedestrian, as the crossing is a temporary one on account of track elevation and positively dangerous for vehicles. We are assured that there is very little fast driving on the boulevards. Hinsdale is getting very strict with all motorists who use the highways to and from Aurora. All the automobile drivers need to do to escape trouble here, however, is to observe the State law and live up to its clauses. Taxicab drivers at night drive like fiends on some of the downtown streets. The police should make examples of some of these reckless men."

Notices have been sent to the members of the Automobile Club of Philadelphia by the club officials as follows: "It is strongly urged that members report in writing to the club any police controls or traps of which they may have knowledge, stating specifically the name of the road and location of the trap; in other words, make the information just as explicit as possible, so that it can be seen at a glance exactly where and on what road the trap exists. This information will be posted on the club's bulletin board and also published in the monthly Bulletin. It will also be of great benefit to all concerned if members will make a written report of any unusual road conditions on the various routes used by Philadelphia motorists. Occasionally repairs are being made to certain portions of different roads. rendering them for the time being impassable, and a notice to that effect from some one who knows of the condition will be of material aid to members who are unacquainted with the facts and who may be planning to travel by that very piece of road. The most concise method is to give the route, name of the road, the location of the repairs, the nature of the repairs, and as nearly as possible the time it will take to finish and put the road in good condition again."

Incident to the opening of the new club house, seventeen miles out of Portland on the Sandy Road, the members of the Portland Automobile Club, enjoyed a delightful run Sunday, August 29. The route selected by President Wemme, starting from the Oregon Hotel, across Burnside Street bridge to Grand avenue, south on Grand Avenue to Belmont Street, east on Belmont to 40th Street, north on 40th Street to East Stark Street; thence to Sandy Road and the club house.

Members of the Tacoma (Wash.) Automobile Club have been warned by Resident Ranger Estes, of the National Park at Mount Tacoma, that unless they and other Washington motorists comply with the rules governing the conduct of automobilists in the park, an order will go into effect prohibiting cars from entering the reserve. The club officials realize the importance of the ranger's warning, and they are making it a point to see that all motorists familiarize themselves with the conditions and live up to them.

The New Jersey Automobile and Motor Club has instructed its touring Bureau to secure a supply of sectional road maps of New Jersey for the use of members of the club. They will be sold to members at a reasonable price.

Herbert M. Sawyer has resigned as assistant secretary of the Worcester Automobile Club. The directors of the club have appointed Charles A. Garrity to fill the vacancy.

Arrangements are being made by the Abilene (Kan.) Motor Club for a county automobile day, to be held about the middle of October, with an afternoon of races, novelty contests and parades, with prizes for the winners.

The Michigan State Automobile Association is endeavoring to form clubs in Muskegon, Saginaw, Bay City. Flint, Holland, Benton Harbor, Lansing, Grand Haven, Manistee. Ludington, Traverse City and Port Huron.

AUTOMOBILE SPORTS

The Louisville (Ky.) Automobile Club has arranged to hold a reliability and economy contest on October 8 and 9. The route to be taken will probably be as follows: Going-Louisville, Fern Creek, Hay's Spring, Mt. Washington, High Grove, Cox's Creek, Bardstown (40 miles), Fredericksburg, Springfield (58 miles), Lebanon (67 miles, dinner), Brumfield. Perryville (87 miles), Atoka, Harrodsburg (108 miles), Lexington (140 miles), Winchester (158 miles). Mt. Sterling (173 miles), Flemingsburg (208 miles), Maysville (225 Returning-Maysville, Washington (4 miles), Mays Lick (12 miles), Peed (14 miles), Fairview (18 miles). Blue Lick Springs (24 miles), Millersburg (371/2 miles). Paris (451/2 miles), Centerville (54 miles), Newtown (60 miles), Georgetown (64 miles), Woodlake (75 miles), Frankfort (82 miles), Shelbyville (104 miles), Louisville (134 miles). The "Louisville Herald" has offered a trophy for the car finishing with the best reliability score. This trophy is to be awarded each year to the winner until it has been won by the same entrant on three different occasions. Another trophy has been offered by the "Evening Post" for the car showing the greatest economy in the use of gasolene and oil. This is also to be won three times before it becomes the permanent property of the winner.

That the Denver Motor Club believes in making early plans is witnessed by the fact that its 1910 contests are already being mapped out. Among other events to be conducted are two races, Decoration Day; reliability contest in June, gasolene economy contest in October, and a hill climb in November.

The Kansas City (Mo.) Automobile Club is talking of building a seven-mile speedway near that city.

Automobilists of New Orleans, La., are enthusiastic over the prospects of another race meet being conducted in their city this fall or winter. Homer George, secretary of the New Orleans Automobile Association, who suggested the meet, requested that the money collected be used

in the construction of an automobile road running from New Orleans to points on the gulf coast of Mississippi. The plans for this road make it a connecting link in a proposed automobile highway connecting New Orleans with Atlanta, Ga., by way of Mobile and Montgomery. Governor Sanders has already pledged the use of convict labor in the construction of this road.

Under the auspices of the Frankfort Automobile Club, a series of flying kilometer speed trials was held near Frankfort-on-Main last week. There were upwards of thirty competitors, who were divided into classes on a horse-power basis. The honors of the day fell to Herr Erle, who, on a Benz, covered the kilometer in 23 3-5 seconds, and also made the best time in two other classes. Other good performances were those of Herr Puch, on a Puch, in the up to 16 hp. class, his time being 29 2-5 seconds, and of Herr D. Opel, who, in the 6 hp. class, drove an Opel car over the course in 39 2-5 seconds.

It is rumored that a large automobile course is to be constructed on the Jersey Meadows. The proposed site is in the town of Kearney, on the banks of the Hackensack River, just opposite Jersey City. Large interests are said to be back of the move to convert 500 acres of the filled-in ground in the salt meadows into a speedway five miles long. This will include a testing track for automobiles and aviation plain for aeroplane contests and baseball and football fields. P. S. Parrish, of the Monetary Realty Company, of New York, in discussing the project, said that it was planned to build a grand stand to accommodate from 100,000 to 150,000 persons. "The entire five-mile circuit," said Mr. Parrish, "will be visible from the grand stand. There will be an oval twomile speedway, and encircling it a three-mile testing track. This outer track is to be diversified with hills and curves, including a hairpin turn. One hill will be from 12 to 140 feet high, with an 18 per cent. grade, and there will be from one and a half to two miles down grade for the finish."

HIGHWAYS

The Niagara Falls Boulevard Association, after very careful consideration, has decided that the difficulties and delays which would necessarily occur in the development of the elaborate boulevard plan which they at first undertook, were so serious as to make it advisable to consider other plans. The boulevard development will be carried out, but not immediately, and in view of the serious road conditions between Buffalo and Niagara Falls, it has been determined that, in order to get something satisfactory with the least delay, it would be best to have the proposed boulevard route built as a State highway. In furtherance of this plan, engineers and surveyors have been going over the route for the last month, pre-paring necessary plans, and these plans are practically completed, and the maps are now finished. This data will be presented to the Highway Commission very soon, and as they have already expressed themselves favorably on the proposition, there is every reason to anticipate that they will take it up, and that the highway will be constructed.

At East Wenatchee. Wash., the farmers have succeeded in securing sufficient funds to begin the improvement of the roads leading to the Wenatchee River bridge from that side of the Columbia. One hundred days' work has been donated by the farmers and \$600 in cash. The Commissioners of Douglas County have agreed to furnish the material for the two bridges which will be necessary. The improved roadway will lead from Wenatchee bridge to the Badger Mountain ridge.

State Road Commissioner Gilkyson. of Trenton, N. J., started from Atlantic City on a tour over State roads with the county freeholders, in order to determine what materials are best suited for use in building the highways of that section. The members of the investigating party include County Judge Enoch Higbee, attorney for the freeholders; County Road Engineer Rightmaier. Senator Edward Wilson, Fraley Doughty, Harry May. John Gertsen, John Unsworth, Frank Enderslip, Edward Robinson, Lewis Mason, L. W. Fifield, and Japhet Price. One of the objects of the

tour is to secure information regarding a new material which the county authorities are planning to use in the construction of a twelve-mile stretch of road between Pleasantville and Somers Point.

The Newark Board of Works has been notified of a dangerous approach to the bridge over the Morris Canal on the old Bloomfield Road, and Engineer Howell has recommended that the matter be attended to at once. The matter of lowering the grade of the bridge approaches has been before the board for the last year, but no definite action has been taken because of the expense involved. It has been the purpose of the board, however, to widen the roadway and at the same time reduce the grade under the recent act of the Legislature permitting the Street Department to spend \$500,000 a year for street openings. Under present conditions the approaches to the bridges from either side are so steep that it is impossible for drivers of vehicles to see their way clear until the top of the bridge is reached. In view of the steep grades automobilists put on high speed upon reaching the base of the approach and trust to luck that they won't meet any one coming in the opposite direction. roadway across the bridge is so narrow that two machines find it difficult to pass. The bridge clears the canal surface by 10 feet 6 inches, and because of the short approaches on either side, the grade on the eastern approach is 7 per cent., and that on the western side 9.18 per cent. The roadway is 18 feet wide, while the bridge is only 13 feet 6 inches wide. Under the plans prepared it is proposed to open and widen Heller Parkway from Forest Hill place to the Belleville line. These plans include the lengthening of the approaches to about 500 feet and thereby reducing the grade on the western slope to 5.76 per cent and on the eastern approach to 2.07 per cent. They also provide for the widening of the roadway over the bridge by a duplication of the present structure, so that there will be separate drives for vehicles going east and west.

Under direction of the county supervisor of highways. Timothy MacMahon, the farmers of Columbia County, Wis., are carrying on an enthusiastic road improvement campaign.

AERONAUTICS

That Orville Wright is rather skeptical regarding the possibilities of dirigible balloons, and particularly those of the Zeppelin type is shown by a discussion he recently had in Berlin regarding the merits of dirigibles. "I do not wish to be under-stood," he said, "as attempting to make any sort of comparison between airships and aeroplanes. They are so diametrically opposite as to make such a thing impossible. The graceful ease and apparent accuracy with which Count Zeppelin can steer his balloon was thoroughly shown during last Sunday's picturesque flight across Berlin. Yet my definite impression is now more confirmed than ever that the airship has nearly reached the limit of its capabilities. As compared with the aeroplane, I should say that the airship occupies the same relative position as the steam engine does toward the gas engine. The possibilities of the former are, as engineers agree, pretty well exhausted. while wholly undreamed of things are to be expected from the gas engine. My superficial observation of the Zeppelin airship, in the light of its past and most recent performances, is that the Count had rather erred in his firm adherence to an all-metal construction. I think the crystallization of the steel and aluminum revealed by his airships has a good deal to do with their inclination to break down at critical and unexpected moments."

On Tuesday, September 7, at Worcester, Mass.. Captain Thomas L. Baldwin made a trial flight in the large dirigible balloon he will use in the Fulton celebration flight from New York to Albany. In manoeuvring over a large lake Captain Baldwin discovered that the danger from condensation of gas while over the water is a negligible quantity. This is gratifying, because the noted aeronaut expects to follow the Hudson River practically all the way to Albany during the Fulton flight. A short trial of the motor indicated that it was working perfectly.

The Washington (D. C.) Aero Club is cooperating with the Chamber of Commerce in an attempt to have Washington chosen as the place for holding the international aerial races next year. Major George O. Squier. of the United States Signal Service. has been appointed to examine sites around Washington where the carnival might be held. A committee from the Aero Club has sent a communication to the Aero Club of America, saying that Washington intends to make a bid for the aviation carnival next year, and asking that any decision as to the place of holding the meet be delayed until Washington could be heard from.

Plans are being formulated for the organization of an aero club in Buffalo, N. Y. A number of automobilists are interesting themselves in the new club. One of the most enthusiastic is E. R. Thomas, the well-known maker of the Thomas car.

Henri Fournier, the famous French racing driver, has joined the ranks of the aviators. A few days ago at Chalons, France, he made several short flights on a Voisin aeroplane fitted with an Italia 50 hp. four-cylinder motor, carrying a passenger with him on one occasion.

Another driver of racing automobiles who has taken up aviation is Hanriot. He has designed and constructed a monoplane with which he hopes to be flying soon. His machine has a span of 10 meters, and the main planes being 3 meters across at the widest part, have a lifting surface of 24 square meters. Balancing is effected by a tail giving 8 square meters lifting surface, while the motor is of 40 hp.

The Aeroplane Club of Russia is establishing an aeroplane trial ground at Gatschina, on land placed at its disposal by the military authorities. By the end of the year it is expected that the club will have no less than nine aeroplanes at its disposal. Six of them will be of Russian construction, while the remaining three will consist of a Wrght, a Voisin, and a Farman biplane.

An aeroplane meeting will be held at Lyons, France, from September 24 to October 3.

An aeroplane meeting is to be held at Marseilles, France, from October 9 to 24.

More Horse-Drawn Vehicles Than Automobiles

Worcester, Mass., Sept. 3.—The figures of the automobile traffic over the State highways taken by the Massachusetts State Highway Commission, for one week ending Sunday, August 29, is completed and the returns received by J. A. Johnson, the engineer for this district shows that the automobile fell far behind the old-time means of conveyance.

The road built around the metropolitan reservoir had 1,207 automobiles pass over it, of which there were three times as many touring cars as there were runabouts. The road leading through West Brookfield to Warren shows 946 automobiles, the Brookfield road 988 automobiles. This road is the direct route from Worcester to Springfield, and these two places are the only ones along the highway that show an advantage in favor of the motor vehicle over the horse vehicle census.

In Leominster the automobiles totaled 477, while Shrewsbury shows 1,566, and Dudley 372. The touring car is used in greater numbers than the runabout, the ratio being 4 to 1, although in some places it runs even higher.

The figures of the commission by towns, as compared with the last census of horse-drawn vehicles, are:

	Auto-	Horse
		ve-
Towns.	biles.	hicles.
Auburn (Worcester line)		1653
Brookfield (Springfield)	. 988	452
Brookfield (North)		372
Charlton Center	. 100	284
Charlton Depot	. 110	598
Douglas	. 83	518
Dudley		2061
Grafton (to Milford)	. 283	528
Grafton		641
Holden Center		744
Leicester		1263
Leominster		344
Millbury (to Sutton)	. 229	1576
Millbury (to Worcester)	. 420	1380
Northboro (to Boston)	. 1268	504
Rutland	. 268	1160
Shrewsbury	. 1566	1791
Southbridge		342
Southboro (to Westboro)	. 236	366
Sterling (to Worcester)	633	1058
Sturbridge	. 276	1525
Southboro (Ashland Road)	. 139	470
Webster	. 476	1151
West Boylston (reservoir)	. 1207	506
West Brookfield (to Warren)	946	406
West Brookfield (to Ware)	. 62	293
Worcester (to Holden)	. 372	840
Worcester (to Paxton)		1518
Totals	13,690	26,000

The Auburn, Paxton and Holden roads are not up to the average, as these roads are being worked by the State Highway Commission.

Boston Police Active

Boston motorists report that the police are very strict in their enforcement of the new automobile law, particularly on the regulation regarding the blowing of the horn before coming to crossroads or intersecting streets. The officers are stationed at busy thoroughfares in the city, and a number of arrests have resulted. Among the speed traps announced recently by the Automobile Owners' Association are:

Forest Hills—Arborway, approaching railroad bridge.

Jamaica Plain—Centre Street, entering Arborway. (Intersecting street, drive slowly.)

Marshfield—Marshfield Hills road, at curve near foot of hill. Police insist that horns shall be sounded.

Medford—Winthrop Square. Officers stationed here to prevent fast driving of automobiles.

Rub Dixon's motor graphite on the rims of your wheels, says *Graphite*. Rub it in well. Then the rims will not rust.

Mitchell Ranger Shows the Military

Mitchell Ranger, the 1910 model of the well-known Racine concern, which left New York August 25 en route to San Francisco burdened with dispatches from Major General Leonard A. Wood to Major General John F. Weston, is now considerably more than half way across the continent. The car, with its military party, consisting of Lieuetenant B. B. Rosenthal, Private M. E. Parrott and their mecanicien, Frank X. Zirbies, arrived at Julesburg, Colo., Tuesday, August 31.

The trio left New York in the Mitchell Ranger on the first continental trip ever essayed for a similar purpose, and they reached Chicago almost forty-eight hours ahead of schedule. Owing to the heavy rains, the Iowa gumbo made the going through that State decided!y heavy, and although the elements were entirely antagonistic they reached Julesburg, the second leg of the journey, twenty-five hours ahead of schedule—the trip being made entirely by daylight.

Of course, the worst part of the trip is yet to come, as the desert will be encountered within a few days, when the trip will be anything but a picnic. The car, which is the first of the 1910 fourcylinder models turned out by Designer Bate, of the Mitchell factory in Racine. Wis., has held up remarkably well considering the hard usage which it received. Driver Frank X. Zirbies, who is a veteran of long distance runs, and who first became famous as a driver of endurance in the twenty-four hour race at Milwaukee two years ago, states that he has had no mechanical trouble whatever with his machine, a fact which should make a good argument for the advocate of the motor car for government use.

Within the next week it is the intention of the tourists to visit a few of the military posts along the route, where the condition of the car will be noted by the United States Army officers, who are showing a deep interest in the run.

Lieutenant Rosenthal and his associates confidently expect to reach the Presidio in San Francisco and present the sealed packet to Major General Weston before the middle of this month.

Driving Permits Required in Denver

According to an order recently issued by the Police and Fire Board of Denver, Colo., transient automobilists must take out a permit to use the highways of the city. This order is the result of a number of motorists from Colorado Springs, Cheyenne and other nearby places exceeding the speed limit and breaking the law in other ways while on their visits to the Mile-High-City.

In order to get a record of the transients the board has sent out an order to all garage managers requiring them to report the arrival of all out-of-town machines, and to instruct the owners that they must take out a special permit

before operating in the city. The permits are issued by the chief of police.

Automobile Road up Mt. Shasta

Work was recently commenced on an automobile road from Sisson, Cal., up the eastern slope of Mount Shasta to Shasta Heights, above the timber line, the highest homestead in California. The road, which is being built by the citizens of Sisson, will be nine miles long, and is expected to be completed by winter. With automobiles running from Sisson to above the timber line it will be an easy task to make the ascent of the peak in one day instead of two.



A WEEKLY JOURNAL DEVOTED TO THE INTERESTS OF AMERICAN AUTOMOBILISTS.

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Hazards of Racing on Road and Track

What was pretty well understood before has been confirmed by the Lowell races this week-viz., that road racing is much less hazardous than racing on circular, or semi-circular, tracks. Furthermore, the contention holds almost as good where special tracks are concerned as when horse-drawn ones are used.

When the matter is reasoned out and the proper deductions made, it resolves itself into this: The motor vehicle is designed and constructed for road use, and the driver, through long driving on the highways, becomes habituated to that style of traveling; consequently, good cars, in the hand of experienced drivers, can be driven in speed contests with a minimum of danger and a maximum of results. On a track, however, the hazards are very much increased. Conditions are different in every way. There is a monotony in the ceaseless circling of the track which tells on the drivers and leads to accidents; the passing of other cars on curves is a necessity, and the drivers become careless or reckless and take chances —with the result that we have seen in almost every track meeting. When the track is unsuitable for automobile racing—as when horse tracks are used—the hazards are still further increased and accidents are almost certain to occur.

We do not go so far as to say that track racing—on properly constructed and completed courses—cannot be made reasonably safe. The experience of the Brooklands (England) track leads to just the opposite conclusion, and it may be that we can duplicate that experience. But it is absolutely indispensable that every possible safeguard shall surround the modern speedway before it can possibly be regarded as safe and usable. When this has been done, as in the case of the Indianapolis Speedway, we shall be in a position to pronounce final judgment. And it should be remembered that the love of speeding is one that is inherant in the human breast, and that it requires some outlet. Better, far, contests on such a speedway as Brooklands, with races limited to the capabilities of the human constitution, than competition on abandoned horse tracks, no matter what their size or how much effort has been spent-to patch them up by resurfacing in sections, or making some improvement in the turns. As to the smaller tracks, they are even worse and more dangerous. If the speedways put them out of business, so far as automobile racing is concerned, they will have justified their existence.

The Present Evil and the Remedy

That the motorist is regarded with less hostility now than at any time since ine, as a class, became at all numerous, is so evident that it will scarcely de denied; and this in spite of the fact that the recklessness and misdeeds of the few still call down unmeasured condemnation. The reason for this is two-fold: First, the automobile is now regarded as a part of modern life, frequently annoying, sometimes dangerous, but still something to be reckoned with always, just as is the trolley car, the steam locomotive or any other concomitant of Twentieth Century civilization. Next, the number of motorists has become so great that in many places there is scarcely a block where there are not one or more machines; and when one's neighbor is a motorist and sometimes invites one to take a ride, the hostile feeling either loses much of its force or vanishes entirely.

The modern public is philosophical, and it soon learns to accommodate itself to almost everything. Displays of recklessness and contempt of the rights of others are to-day all that stand in the way of a still greater change of attitude. If the source of irritation—the recklessness referred to—could be removed, the irritation itself would vanish at once. The enactment of oppressive, inequable and vexatious laws would come to an end, and there would follow a betterment of condition that would make a world of difference. Unenforceable laws would disappear or be so materially amended that their sting would be removed. Speed traps and all the paraphernalia which attend them would become a thing of the past, grafting officials would retire to the obscurity which was their lot prior to the coming of the automobile and a general peace would prevail.

Before this pleasing condition of affairs can become a realty, however, the reckless motorist must be taken in hand and curbed. If the authorities can't or won't do it, nothing remains but the assumption of the unpleasant task by motorists themselves. Then, and then only, will the nuisance be abated and peace be declared.

TRADE DEPARTMENT

Shaft Drive for Alco 1910 Line

A number of changes mark the 1910 Alco line, details of which have just been announced by the American Locomotive Company. Chief among them is the substitution of shaft drive, European practice in this, as in so many other respects, having been followed so far as the larger Alco models are concerned; although the town cars have had a shaft drive, with a rear axle construction of the floating type.

This special rear axle construction, in conjunction with a shaft drive, will be used on all the 1910 models. Another important change is the adoption of the Bosch dual system of high tension ignition, comprising both magneto and batteries and operating through one set of spark plugs. The batteries make it possible for the driver to invariably start the engine from the seat.

Beside the new transmission and minor improvements, a new line of lightweight aluminum bodies of ultra elegance have been designed for 1910. Sheet aluminum is used for the expansive, graceful panelings, with aluminum castings for the door frames. The mouldings about the panels are rolled in with the aluminum sheet, instead of being attached separately. The lines of all the cars are handsomer than ever, while the interiors are very roomy and luxurious.

With these improvements there is a reduction of prices that makes the Alco product, which has always been somewhat exclusive, much more generally attractive. The new models and prices are as follows:

40 hp. touring car	\$4,750
40 hp. limousine or laundaulet	5,500
60 hp. (six-cylinder) touring car	6,000
60 hp. (six-cylinder) limousine or lan-	
daulet	
22 hp. town car, limousine or landau-	
let	4.350

The Cost of a Guarantee

What does it cost an automobile manufacturer to guarantee his product for a year?

This is a question that has agitated the minds of many manufacturers, and the data that has heretofore been obtainable has been so meager that few concerns have had the temerity to offer any such guarantee with their product. The standard warranty of both national organizations covers only sixty days from date of shipment—and this only for defective workmanship or material.

One of the few concerns that has always guaranteed its product for a year is the Studebaker Automobile Company. During the time that concern has been marketing Studebaker-Garford cars 1,571 chassis have been sold. Inasmuch

as it was the mission of these cars to lay a foundation for the future, the Company has been more than liberal in making good its warranty. It comes as a surprise therefore to learn that the entire guarantee, counting from March, 1905, to October, 1908, amounted to only \$16,620.18—an average of \$10.51 per car.

Moline Growth Calls for Factory Addition

The Moline Automobile Company, East Moline, Ill., has just awarded a contract for the building of an additional factory, 100x125 feet and four stories high. This will give the Moline company 50,000 square feet additional floor space, which will be used for chassis and body assembling and warehouse.

Chalmers-Detroit Line for 1910

Two chassis models will be manufactured by the Chalmers-Detroit Motor Company for 1910. Both models will practically be a continuation of those presented for 1909, with such modifications as a year's experience has shown to be advisable. Various bodies to suit every taste will be furnished to fit the "30" chassis, while the "Forty" chassis will be fitted with touring car, pony tonneau and roadster type bodies.

The "30" chassis will have a motor $4 \times 4\frac{1}{2}$ inches, an increase of $\frac{1}{2}$ inch over the bore of the 1909 cars. In practically every other respect the motor will be identical with last season's, except that the oil pump has been placed in a more accessible position. The crankshaft is still mounted on two ball-bearings, as this has proved during the past season to be wonderfully efficient.

Large inlet valves mounted in the heads of the cylinders, which has been a feature of the Chalmers-Detroit "30" since its inception, is one of the causes which has enabled the motor to develop such remarkably high power on so small a piston displacement.

The circulating positive feed oiling system is retained in practically its original form. The Chalmers-Detroit construction of inlet manifold castings in one piece, with water jacket side plates, is a special feature this year as last. Perhaps the most striking feature to the casual observer is the size of the exhaust manifold and piping to muffler, this combined with large exhaust valves being used to eliminate all back pressure and to clear the cylinder promptly of burned gases.

The multiple disc clutch for 1909 has been so successful that it has been retained exactly as it was. The transmission is in a unit with the motor and clutch. Three speeds and reverse are provided, with a selective arrangement.

The bearings throughout are annular ball. The gears are made of chrome vanadium steel, and treated with the greatest care. The teeth are all heavy pitch and the gears arranged in as compact a manner as possible, in order to keep the shafts short.

The final drive takes place through a single steel-bushed, metal-cased universal joint, back of the transmission, through a propeller shaft surrounded by a torsion sleeve bolted at its rear end to the axle casing. The axle is of the full floating type, annular ball-bearings being used throughout, including the hub bearings. A compact bevel gear differential is used, having four pinions.

Following the usual Chalmers-Detroit practice, one transmission brake is provided immediately behind the gear case, actuated by a pedal. One set of internal expanding brakes, operated from a side lever, are placed directly on the rear wheels. The placing of the foot brake on the transmission has a number of advantages, among which may be mentioned: The increased braking power, owing to the drum being geared up from the wheels; simplicity, cleanliness obviating the clogging of the braking toggles, which invariably occurs in the inside brakes mounted on the wheels; the removal of all superfluous weight from the axle, and the consequent saving in tire wear; complete equalization of braking effort between the two wheels independently of the condition of the braking or the road sur-As against these advantages, only one imaginary effort through the rear axle driving mechanism. However, this mechanism must be amply strong to allow the motor slipping the rear wheels under all condition of load and road surfaces.

The braking effort can't possibly exceed this. In fact, it must always re-

main somewhat less. A brake placed on the transmission can, therefore, never strain the driving mechanism quite as much as the motor itself is capable of doing.

The steering gear remains exactly as it was during the past year. The shifting mechanism has been improved by inclosing it hermitically in separate casings. The frame has been dropped behind the front seats so as to lower the rear footboards and the center of gravity of the whole car. The upper and lower flanges have been very much widened to give extreme stiffness, thus relieving the mechanism and body from severe strain. $34 \times 3\frac{1}{2}$ tires are being fitted for 1910 as against $32 \times 3\frac{1}{2}$ for 1909.

All spring shackles and other working parts are provided with generous grease cups, and remarkable care has been exercised to effectively and neatly lock all running-gear nuts and bolts.

The general appearance of the car has been improved by lengthening the wheel base and body. The hood has been raised and lengthened to conform to the increased size of the car. The wheel base is 115 inches as against 110 inches last year, the tread remaining standard, though a 60-inch tread will be optional on cars going to the South.

The Chalmers-Detroit "Forty" model will incorporate very few changes mechanically from last year's construction, although the wheel base has been greatly lengthened and the touring body enlarged to make room for seven passengers.

The motor will continue to be 5 x 43/4, with inlet and exhaust valves all on one side; a three-plain bearing crank-shaft, and a circulating oiling system.

The leather-faced cone clutch itself remains practicaly unchanged, but the operating mechanism has been modified so that the pressure on the pedal required to throw it has been reduced to about one-third of the former pressure.

The gear box has been changed by placing the second motion shaft underneath the through shaft instead of above it, as in the past. The transmission this year will be mounted throughout on annular ball-bearings. A double universal joint drive has been retained, the torque being now taken up by a triangular arm instead of a single lever. The rear axle will be of pressed steel, autogenously welded along the neutral giving the greatest possible amount of strength for a given weight, so much that no strut rod is even neces-The frame has been dropped, as in the "30," under the side doors. The upper and lower flanges of the frame have been made very much deeper, following the best European practice. This insures a rigid foundation for the body, preventing the binding of doors, etc., so frequently met with. A honeycombed radiator has been substituted on the "Forty" for one of the vertical-tube type. The axle is of the full floating type, with bevel gear differential. No brace is used under this axle.

The "30" is furnished in touring car, pony tonneau and roadster, at \$1,500; as an inside drive coupe, for \$2,100, and as a limousine and landaulet, for \$2,750. All styles of the "Forty" touring car, pony tonneau and roadsters are \$2,750, except that \$75 additional is asked for two extra seats in the touring car.

Gilbert is Now With the Plain Dealer

Will S. Gilbert, after years of service with the Cleveland (O.) Leader, is now automobile editor of the Plain Dealer of that city. Gilbert was one of the earliest automobile writers, and is a veteran of many Glidden tours and local contests. He succeeds H. H. Hower, who is now in charge of the publicity department of the F. B. Stearns Co.

Novel Test for 1910 Ramblers

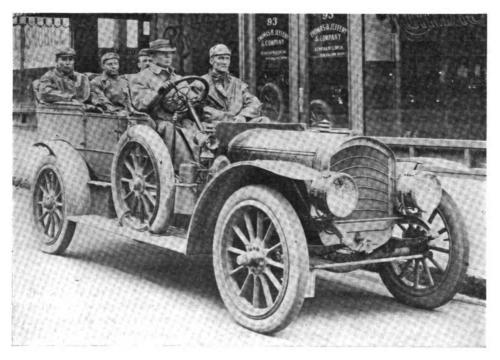
When a new model is ready to be tested, the people best qualified to put it through its paces are the men who have the selling of it—the dealers. If it has any weaknesses or shortcomings it is a safe wager that they will find it out, and that without any great delay. This well known fact led Thomas B. Jeffery & Co. to submit their 1910 model Fifty-five to them, giving them carte blanche to do their worst. Two machines were turned over to the Rambler agents, one for the Eastern and one for the Western territory, and before they were returned to the factory they had each been driven 5,000 miles under ideal "testing" conditions.

Each dealer in each territory received the test car from the dealer in the preceding territory and ran it as long as he chose, over the most difficult roads in his locality, with the object of

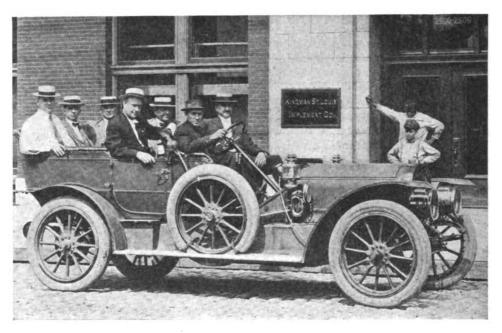
determining for the benefit of the maker any weaknesses which might otherwise require months to detect and might possibly be overlooked even in the exacting Rambler factory tests.

The route of the first car was from Chicago to Indianapolis, by way of South Bend, thence to Louisville, Nashville, St. Louis, Kansas City, Omaha and Chicago, returning to the factory in the hands of J. T. Stewart, of the Coit Automobile Company of Omaha.

The second car, which left the factory in charge of the Rambler branch managers, was driven to Cleveland by way of Chicago and Toledo by G. S. Patterson, of the Cleveland branch. This car traversed the East, passing through Pittsburg, Harrisburg, Philadelphia, New York, Hartford, Boston, Albany and Buffalo, returning to the factory by way of Cleveland and Chicago.



MANAGER ROCKWELL, OF THE BOSTON BRANCH, TAKES THE CAR



THE CAR STARTING FROM ST. LOUIS FOR KANSAS CITY

Test trips of new models in the hands of factory experts are not uncommon, but it has been thoroughly demonstrated that some difficulties which arise in cars used by different people, under different conditions, do not always become apparent in factory tests. The Jeffery Company decided, therefore, to make the most severe possible test by placing the car-in the hands of their dealers.

In this way every possible road condition was encountered, and a wide experience in driving on the part of the various dealers was assured.

Both cars returned to the factory in perfect condition, having overcome road conditions, some of which had never previously been encountered by an automobile.

The trip of the first car from Kenosha to Chicago, South Bend, Logansport and Indianapolis was made with a factory man at the wheel, where it was turned over to the first dealer—Prince Wells, of Louisville, Ky. Wells drove

the car from Indianapolis to Louisville, and from there over an old pre-war-time stage route to Nashville. This was the most difficult passage of the 5,000 miles covered by this car.

At Louisville the Kingman St. Louis Implement Company took the car, by way of French Lick, to St. Louis, where the Rambler Automobile Company, of Kansas City, received it. Then, by a circuitous route, various dealers piloted it through Missouri to Kansas City.

In the Missouri Valley, because of the floods, the roads were almost impassable, the car being detained thirteen and one-half hours in one mud hole.

At Kansas City the Coit Automobile Company, of Omaha, took the car, driving it to Lincoln. At Lincoln E. E. Mockett began a record-breaking run to Omaha, making 66 miles in 1 hour and 59 minutes, establishing a new record for the trip—the previous time being 2 hours and 35 minutes. J. T. Stewart drove the car from Omaha to Chicago

and thence to Kenosha. This model will be shipped to Kansas City to participate in the *Kansas City Star* endurance run in September.

The Eastern trip began at Kenosha when the branch managers of Thomas Jeffery & Co., representing New York, San Francisco, Boston, Milwaukee and Cleveland, took the car over the first leg of its journey. At Chicago it was turned over to Manager Patterson of Cleveland, who went East by way of Cleveland. L. G. Martin, of Pittsburg there took charge of the car, going by way of Youngstown to Pittsburg in seven hours without difficulty.

At Pittsburg the New York branch took charge of the car, routing it through Harrisburg to Philadelphia. From New York the Boston representative received the test car and it was relayed through New England by way of Providence and on to Boston and thence to Albany. Here it was met by the Rochester representative and taken through to Buffalo, where it was again delivered to the Cleveland man, who, in turn, started it on the return trip to the factory.

Public announcement will be made of the new Rambler within the month.

Pierce-Arrow Ball Tossers Win

The question of the baseball supremacy of the Pierce-Arrow and Thomas plants, at Buffalo; which has been troubling the men who work at the two factories, was settled decisively Sunday and Monday of this week, when the teams representing those two concerns met for a two-game serious at Liberty Park at Buffalo. Both teams rank well up among the leaders of the semi-professionals of Buffalo, but as the Thomas team had played none of the teams that the Pierce-Arrows had been battling against there was no way to get a line on the respective ability of the two.

In the Sunday game the Pierce-Arrows won in a most one-sided game, the score being 15 to 1. The team work of the Pierce players was perfect, and this

had much to do with gaining the victory for them. In the Monday game the Pierce-Arrows again won, hands down, the score being 10 to 2. All of the men on the Pierce-Arrow team are employed in the shops and offices at the plant, but notwithstanding the fact that they are not professionals in any sense of the word, they will probably play a series of games with the Buffalo team of the Eastern League as soon as its regular season ends.

This series will determine the championship of Buffalo, the Pierce-Arrows having beaten all other contenders for the title, except one team which will not agree to two umpires for the game or a division of the gate receipts which would give the winner the larger percentage.

The Peerless Equipment Book

A handsome booklet which has been issued by the Peerless Motor Car Company, devoted to the equipment furnished for Peerless cars, is a model of its kind. It describes and illustrates the Peerless windshield, which folds in double form; the new Peerless trunk,

which holds three suit cases; the toolbox and tools furnished with Peerless cars; the lamp equipment, consisting of two gas headlights, two oil and electric side lamps and one oil and electric tail light; five styles of Peerless tops, and other equipment details.

Details of the \$1500 Maxwell

Just what can be turned out in the way of a full sized, amply powered four-cylinder car to sell for \$1,500, when quantity production figures largely is shown in the new Maxwell car, reproductions of which are here given. In this model, designer J. D. Maxwell has excelled himself and produced a car that is almost beyond criticism.

The new four-cylinder, 30 hp. models follow in most particulars the construction of the same cars a year ago, although there are a number of important modifications and refinements. The most obvious changes are a longer wheel base, larger wheels, roomier bodies and a marked improvement in riding qualities attained by the use of three-quarter elliptic springs used heretofore.

The frame is of pressed steel, hot riveted, and of channel section.

The power plant is of the four-cylinder vertical type, with cylinders cast separately, so that five large bearings can be used. Easy access to connecting rods, main bearings, etc., is afforded by large hand holes, four on each side. The valve chambers and water jackets are integral with cylinders. The water spaces are very large and extend not only around the piston chamber, but also around the valve chamber. The valves themselves are of generous size, located on opposite sides, and operated by cams and square push rods moving in bronze guides.

The crank case forms a unit with the transmission case, and is a special aluminum alloy casting, divided into four compartments which hold a quantity of oil for lubricating main bearings and connecting rod bearings by splash.

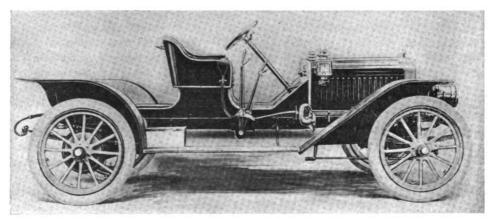
The crank-shaft is drop forged of nickle steel, finished all over and treated by a special toughening process.

The main bearings are of specially compressed babbit metal and provided

with grooves to facilitate proper lubrication. The location of the bearings results in perfect alignment and in freedom from adjustment. Particular attention has been given to the connecting rods and their bearings. The rods were especially designed to allow adjustment at both ends and have oil grooves to insure perfect lubrication.

No change has been made in the transmission, which, as in former Maxwell cars, is of the progressive slidinggear type, with three forward speeds and reverse. A noteworthy feature of all Maxwell cars is the provision of an interlocking device, consisting of a notched quadrant, which makes it absolutely impossible for the operator to shift gears while the clutch is in engagement. In consequence, there is no stripping of gears in Maxwell cars. high-speed drive is direct from the engine shaft, without intervening gears. The gears themselves are made of the finest quality chrone-nickel steel of ample proportions and accurately cut. Motor and transmission are supported in the frame at three points.

The clutch is of the well-known Maxwell multiple-disc type and the sawsteel discs revolve in a compartment filled with oil. This arrangement reduces wear to an almost negligible quantity. The oil in the clutch compartment also performs the peculiar function of facilitating the action of the clutch in engagement, for while it lubricates the clutch with the plates sliding loosely upon one another, the cohesive property of the thin film of oil that remains between the plates after the surplus has been squeezed out, causes the clutch plates to be locked firmly and to rotate together without slipping when the clutch is engaged. Yet the clutch can be made to slip to any desired degree, without heating-a welcome feat-



MODEL "G"-THE ROADSTER

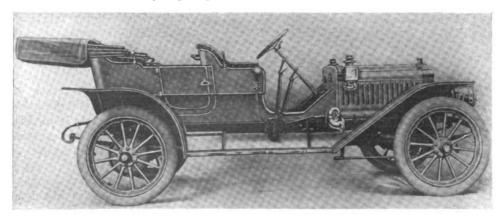
ure when, as it often happens in crowded traffic, it is desired to slow the car down for a moment without changing gears.

The drive to the wheels is by propeller shaft, with two universal joints. The forward universal joint is packed in grease, while the one at the rear end of the shafts is provided with a unique self-oiling device which obviates all wear. The engine is inclined so that a straight line may be drawn through the engine shaft and continued through the transmission and drive shafts through the differential. This straight-line drive reduces wear in the universal joints to a minimum, besides saving engine power.

Cooling is by the thermo-syphon system, which requires no pump. The cooling effect is proportionate to the requirements of the engine. The action of the honeycomb radiator is assisted by a belt-driven fan.

The carburetter is of Maxwell design, of the constant level, float-feed type, and provided with means for automatic compensation, giving a correct mixture at all speeds.

The problem of lubrication is most ingeniously solved by a pump designed by Designer J. D. Maxwell. This pump forces the oil in exact quantities through a single feed into each cylinder. The lubricator is driven by a double set of



MODEL "G2"-WITH DETACHABLE TONNEAU

gears, and is positive in its action. Rather novel is the manner in which efficient lubrication is given to the pis-The cylinder bears at its base a grooved ring, which is kept filled with oil at all times and into which the piston dips with each downward stroke. The piston itself is provided with two grooves. The lower groove is filled with lubricant every time the piston dips into the oil ring on the downward stroke and carries oil in an even film all over the cylinder wall. The overflow from the oil rings goes into the crank case, and there augments splash lubrication.

Ignition is by magneto, with non-vibrating coil, a battery of dry cells being added to facilitate easy starting. The coil is carried in a steel cylinder under the floor board so that the dash is unencumbered with accessories, and shows only the two-way switch, a single sight feed and glass gauge indicating the level of the lubricant in the tank, which latter also is carried under the hood.

Gas control is double—by pedal and by a lever, located at the left, immediately under the steering wheel. Spark control is by a similar lever under the wheel, located on the right side.

The steering wheel is large, and the steering itself is accomplished by worm and sector.

The rear axle is of substantial construction and equipped with four roller bearings, two on either side of the differential and two near the hubs. The drive pinion also is equipped with two improved roller bearings. Two sets of brakes of the external-contracting and internal-expanding type are mounted on the rear hubs.

The wheel base has been lengthened to 110 inches, which is well within reasonable limits—long enough for comfortable riding, yet short enough to permit of easy handling in street traffic.

The wheels are of artillery pattern of selected second-growth hickory; their diameter is 34 inches, and the rims are of the quick-detachable pattern, with four-inch tires in front and rear.

All Maxwell bodies are made of sheet steel, with stamped mouldings, a construction as light as wood and stronger than aluminum, not liable to breakage, since dents may be hammered out, while in the case of the broken wood body the substitution of an entire new panel becomes necessary.

The 30 hp. Maxwell chassis is furnished with three styles of body—the Model "E," five-passenger touring car, at \$1,500; the Model "G" roadster, 2t \$1,500, and the Model "G2" touring car, with detachable tonneau. An extra charge of \$75 is made for the detachable tonneau.

The equipment includes gas lamps and generator, oil side lights, tail lamp, horn, tools and tire kit.

Peruvian Army After American Cars

Automobiles made in Racine, Wis, will in future be used in the Peruvian army. General Don Martinez Veraqua, of the Peruvian army, has made a special trip to Racine to inspect the Mitchell and other cars made there, and has left as his agent Prof. Pimienta, who is instructed to select a machine that will be suitable for rugged country, and that will be strong in durability and

hill-climbing qualities. According to General Veraqua, Chile will probably follow the example of Peru, if the historic west coast republic includes automobiles in its army equipment.

The Packard Motor Car Company has been reorganized under Michigan laws, with \$5,000,000 preferred and \$5,000,000 common stock.

A Good Plug For Almost Nothing

"An unusual offer is made by the Standard Sales Company, New York, manufacturers of the Fry spark plug. The concern will give any reader of AUTOMOBILE TOPICS a Fry plug for the mere cost of postage and packing, it being necessarily merely to give size of thread, name of their supply house or dealer and cut out the Standard Company's advertisement.

It is claimed that the Fry spark plug is simple, strong, absolutely indestructible; it will give long and satisfactory service, and every one bears a "money back" guarantee. They are made for use with magneto or battery. The porcelain can be cleaned and replaced in one minute. It has an asbestos-copper gasket, brass packing gland, center electrode of metal of highest test resistivity, no fusing firing points, and self-contained firing chamber.

Are Your Wheels in Track?

Many motorists permit the wheels of their cars to get out of alignment, and because it is not noticeable and there is no racking or discomfort they do not go to the effort and expense of having the wheels trued up. This disalignment is frequently caused by skidding or striking an obstruction with the front wheels so that the steering knuckle is bent, and while it may not be universally known, wheels that are thus thrown out of true will wear out tires considerably faster than when in proper shape.

Experts of the Fisk Rubber Company have found this to be a fact in many instances and when a car is sent to them to be fitted with Fisk tires, the company makes certain that the wheels are true, so that the maximum efficiency and lasting qualities of their tires are obtainable. When wheels "toe in" or "toe out," the stress naturally falls to one side of the tread instead of being directed to its center. This causes unequal strain on the sides of the tire, which cannot but help damage the fabric as well as the rubber.

New Thomas Company in Boston

A Massachusetts corporation has been formed with a capital of \$100,000, known as the E. R. Thomas Motor-Pranch Company. The officers are: F. L. Thomas, president; J. M. Edsall, secretary and treasurer; C. S. Henshaw, manager. Their temporary offices are at 288 Columbus avenue, Boston, Mass.

H. N. Dunbar has been made sales manager of the Mutual Motor Car Company, agents for the Stearns line in the Pittsburg, Pa., territory.

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INDEX TO ADVERTISERS

Automobiles (Electric)—	
Baker Motor Vehicle Co	. 1523
Woods Motor Vehicle Co	1521
Automobiles (Gasolene)—	
Chalmers-Detroit Motor Co	1582
Haynes Automobile Co	. 1579 . 1582
HerreshoffHarry S. Houpt Co. Hudson Motor Car Co.	1582
Inter-State Automobile Co	1582
Locomobile Co. of America	. 1583
Matheson Motor Car Co	•
Mitchell Motor Car Co	. 1582
Mora Motor Car Co Palmer & Singer Mfg. Co	
Palmer & Singer Mfg. Co	. 1582
Peericss Motor Car Company	1552
The Pierce-Arrow Motor Car Co	Cover
RamblerThos. B. Jeffery & Co	1526
Renault Freres Selling Branch	. 1517
The F. B. Stearns Co	. 1519
Simplex Automobile Co	
Studebaker Automobile Co	1523
I be E. K. Thomas Motor Co	. 1582
Winton Motor Carriage Co Inside Front	Cover
Automobiles (Steam)—	
The White CompanyBack	Cover
LaneLane Sales Co	. 1582
Retteries	
Batteries-	
Stanley & Patterson	. 1517
Dedies	
Bodies-	
Springfield Metal Body Co	. 1522
Springfield Metal Body Co	. 1522 . 1583
Springfield Metal Body Co	. 1522 . 1583
Auto-Rebuilding Co	. 1583
Auto-Rebuilding Co. Champagnes— Pommery.	. 1583
Auto-Rebuilding Co	. 1583 . 1583
Auto-Rebuilding Co. Champagnes— Pommery.	. 1583 . 1583
Auto-Rebuilding Co. Champagnes— Pommery. Coils— Heinze Electric Co.	. 1583 . 1583
Auto-Rebuilding Co. Champagnes— Pommery. Coils— Heinze Electric Co. Dust Preventives—	. 1583 . 1583
Auto-Rebuilding Co. Champagnes— Pommery. Coils— Heinze Electric Co.	. 1583 . 1583
Auto-Rebuilding Co. Champagnes— Pommery. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co.	. 1583 . 1583
Auto-Rebuilding Co. Champagnes— Pommery. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding—	. 1583
Auto-Rebuilding Co. Champagnes— Pommery. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co.	. 1583
Auto-Rebuilding Co. Champagnes— Pommery. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic—	. 1583
Auto-Rebuilding Co. Champagnes— Pommery. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co.	. 1583
Auto-Rebuilding Co. Champagnes— Pommery. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co.	. 1583
Auto-Rebuilding Co. Champagnes— Pommery. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic—	. 1583
Auto-Rebuilding Co. Champagnes— Pommery. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barren Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Fenders— Auto-Rebuilding Co.	. 1583
Auto-Rebuilding Co. Champagnes— Pommery. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Fenders— Auto-Rebuilding Co. Graphite—	. 1583
Auto-Rebuilding Co. Champagnes— Pommery. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barren Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Fenders— Auto-Rebuilding Co.	. 1583
Auto-Rebuilding Co. Champagnes— Pommery. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Fenders— Auto-Rebuilding Co. Graphite— Joseph Dixon Crucible Co. Ignition Devices—	. 1583
Auto-Rebuilding Co. Champagnes— Pommery. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Fenders— Auto-Rebuilding Co. Graphite— Joseph Dixon Crucible Co. Ignition Devices— A. R. Moeler & Co.	. 1583 . 1583
Auto-Rebuilding Co. Champagnes— Pommery. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Graphite— Joseph Dixon Crucible Co. Ignition Devices— A. R. Moeler & Co. Bosch Magneto Co.	. 1583 . 1583
Auto-Rebuilding Co. Champagnes— Pommery. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Graphite— Joseph Dixon Crucible Co. Ignition Devices— A. R. Moeler & Co. Bosch Magneto Co.	. 1583 . 1583
Auto-Rebuilding Co. Champagnes— Pommery. Coils— Meinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Fenders— Auto-Rebuilding Co. Graphite— Joseph Dixon Crucible Co. Ignition Devices— A. R. Mosler & Co. Bosch Magneto Co. C. F. Splitdorf. Elsemann Magneto—Lavalette & Co.	. 1583 . 1583
Auto-Rebuilding Co. Champagnes— Pommery. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Fenders— Auto-Rebuilding Co. Graphite— Joseph Dixon Crucible Co. Ignition Devices— A. R. Moeler & Co. Bosch Magneto Co. C. F. Splitdorf. Elsemann Magneto—Lavalette & Co. Heinze Electric Co. J. S. Betz & Co.	. 1583 . 1583
Auto-Rebuilding Co. Champagnes— Pommery. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Fenders— Auto-Rebuilding Co. Graphite— Joseph Dixon Crucible Co. Ignition Devices— A. R. Moeler & Co. Bosch Magneto Co. C. F. Splitdorf. Elsemann Magneto—Lavalette & Co. Heinze Electric Co.	. 1583 . 1583
Auto-Rebuilding Co. Champagnes— Pommery. Coils— Meinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Fenders— Auto-Rebuilding Co. Graphite— Joseph Dixon Crucible Co. Ignition Devices— A. R. Moeler & Co. Bosch Magneto Co. C. F. Splitdorf. Elsemann Magneto—Lavalette & Co. Heinze Electric Co. J. S. Bretz & Co. Standard Sales Co.	. 1583 . 1583
Auto-Rebuilding Co. Champagnes— Pommery. Coils— Heinze Electric Co. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Fenders— Auto-Rebuilding Co. Graphite— Joseph Dixon Crucible Co. Ignition Devices— A. R. Moeler & Co. Bosch Magneto Co. C. F. Splitdorf. Elsemann Magneto—Lavalette & Co. Heinze Electric Co. J. S. Betz & Co.	. 1583 . 1583 . 1583 . 1583 . 1583 . 1583 . 1583 . 1584 . 1589 . 1580 . 1580 . 1580 . 1580 . 1580

Lamps—	
Badger Brass Mfg. Co	1524 1580
Leather	
The Pantasote Co	
Lubricants-	
Columbia Lubricants Co	1581
Joseph Dixon Crucible Co	1583
Vacuum Oil Co	
Magnetos Bosch Magneto Co	1518
C. F. Splitdort	1583
Eisemann MagnetoLavalette & Co	1580
J. S. Bretz Co	1524
Oils—	
Columbia Lubricante Co	1581
Vacuum Oil Co	
Parts—	
Billings & Spencer	1583
Photo Engravers-	
Sterling Engraving Co	1580
Race Meet	
Syracuse Automobile Track Races	1525
Seats	
Auto-Rebuilding Co	1583
Second-Hand Dealers— Times Square Auto Co	1522
Shock Absorbers-	
Ri-Cal-Ky Auxiliary Spring Co	1583
Hartford Suspension Co	
	1549
Signalling Devices— Nightingale Whistle Co	1583
Spare Wheels-	
United States Spare Wheel Co	1581
Spark Plugs-	
A. R. Mosler & Co	1581
Timers—	.,.,
A R. Mosler & Co	1581
Tires—	
Ajax-Grieb Rubber Co	1583
Continental Caoutchouc Co	1583
Diamond Rubber Co	1579
Morgan & Wright	1581
Republic Rubber Co	1583
Tire Grips— Weed Chain Tire Grip	1580
Tona	
Tops— Sprague Umbrella Co	1583
Sprague Umbrella Co	

News Notes

Studebaker-E-M-F. cars will be handled in Syracuse, N. Y., hereafter by C. Arthur Benjamin.

The Crown Auto Co., of Cincinnati, distributors of Cadillac cars in that city, have removed from 108 W. Court Street to much larger quarters at 2624-26 Reading Road.

The Swinehart Clincher Tire and Rubber Company, of Akron, O., has elected officers for the ensuing year as follows: J. A. Swinehart, president; W. W. Wuchter, vice-president and general manager: C. O. Baughman, secretary, and R. A. May, treasurer.

An armored motor vehicle is to be used for the first time in Germany during the fothcoming military manoeuvres in that country. The chassis of the machine was built by the German Daimler Company, while the armored body was constructed by the Bergische Stahlindustriewerke of Remscheid. Two other armored vehicles of French construction and purchased from the Russian government are also to be tested.

In the Merrimac Valley Trophy contest of the light car sweepstakes, at Lowell, Mass., on Labor Day, September 6, Ajax tires made an excellent showing on the three Maxwell cars which ran second, third and fifth. Arthur See, who was second, Costello and Sickinger, the drivers who finished in the order mentioned, drove the full 127 miles without a single puncture and were not handicapped by tire trouble of any sort. While Ajax tires have had their merits known chiefly through the satisfaction given by them in touring at moderate speed, they succeeded in proving at Lowell, as at Savannah, that they can stand high speed as well, and hold together under all circumstances. The makers are still guaranteeing Ajaxes for 5,000 miles.

The new eight-cylinder Buick racing car was not tried out at the Indianapolis Speedway on account of the rough condition of the course. The car weighs less than 2,000 pounds, the frame being underhung. It has no transmission, and is driven direct through a one-tooth gear. Fitted with 28-inch wheels with a tire lug between each spoke, this car looks as if it ought to shatter records on circular tracks and on straightaways. Two carburetters are used to get a sufficient amount of gas for the eight cylinders. The Buick team, composed of Strang, Louis Chevrolet, Burman. De Witt and Arthur Chevrolet cleaned up a number of events at the Lowell races this week.



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INCORPORATIONS

Staunton, Va.—The Beverly Garage (Inc.), with \$10.000 to \$25,000 capital. Incorporators: M. W. Mercereau and L. A. Beck.

Dearborn, Mich.—The Detroit-Dearborn Company, with \$50,000 capital. Incorporators: Edward Bland and Samuel Lapham.

West Orange, N. J.—Saurer Motor Trucks, with \$200,000 capital. Incorporators: W. I. Sargent. G. M. Judd, and E. H. Fallows.

Chicago, Ill.—Renault Freres Selling Branch. with \$5,000 capital. Incorporators: William Burry, G. M. Peters and D. R. Richberg.

Houston, Tex.—Houston Motor Car Company, with \$10,000 capital. Incorporators: E. T. Barden, H. D. Ellis, and O. E. Coverdill.

Pittsburg, Pa.—Duquesne Auto Company, with \$30,000 capital. Incorporators: George A. Holliday, B. Nimick, and Kirk B. Bigham.

Houston, Tex.—Olds-Oakland Automobile Company, with \$10,000 capital. Incorporators: C. F. Gydeson, Robert Druschke and N. B. Judd.

Kankakee, Ill.—Worth Motor Car Manufacturing Company, with \$2500 capital. Incorporators: E. L. Worth, N. B. Worth, and M. L. Scott.

Minneapolis, Minn.—Robinson-Loomis Motor Truck Company, with \$50,000 capital. Incorporators: T. F. Robinson, F. P. Robinson, and F. L. Loomis.

New York, N. Y.—McAuliffe & Co., with \$25,000, to manufacture automobiles. Incorporators: J. J. McAuliffe, D. H. McAuliffe and H. Feltman.

New York, N. Y.—Garland Automobile Company, with \$25,000 capital, to manufacture automobiles and motors. Incorporators: G. W. Garland, Jr.; G. P. Strobel, and J. A. Garland.

Birmingham, Ala.—Citizens' Automobile Company, with \$25,000 capital, to engage in the manufacture and sale of automobiles. Incorporators: J. C. Turner, M. F. Hinckman, H. G. Robinson, and G. W. Yacny.

Nashville, Tenn.—Automobile Transportation Company of Covington, with \$3,000 capital. Incorporators: L. Hill, Jr.; J. M. Morrison, John Craig, Thomas Anderson, J. M. Polk, T. O. Gibbs, and J. B. Sanford.

Automobile Calendar

September 10-11.—Twenty-four hour race at Baltimore, Md., under the auspices of the Motor Car Racing Association.

September 11, 12, 13, 14.—Second Jersey Jubilee Tour, under direction of the Touring Club of America.

September 11-19.—Florio Cup Race, under the auspices of the Automobile Club of Bologne. Italy.

September 12.—Two Automobile Road Races, under the auspices of the Automobile Club of Ostend.

September 15.—Start of Endurance Contest from Denver to Mexico City.

September 15-18.—Annual National Motor Boat Carnival on the Hudson River, under the auspices of the Motor Boat Club of America.

September 16.—Second annual reliability team match between the Chicago Athletic Association and the Chicago Automobile Club.

September 17.—Race for Light Cars on the Ostend Circuit, under the auspices of the Belgian Automobile Club.

September 18.—Automobile Track Race at Syracuse, N. Y., under auspices of Automobile Club of Syracuse.

September 18.—Decorated Automobile Parade at Denver, Colo., in connection with the second annual Colorado Inter-State Fair and Exposition.

September 18-October 3.—International Aeronautical Exposition at the Grand Palais, Paris.

September 19.—Road Race at Los Angeles, Cal.

September 19.—Semmering Hill-climb.

September 19.—First annual outing, field and ladies' day of the New York Automobile Trade Athletic Association.

September 20, 21, 22.—Second annual efficiency tour around Long Island, under the auspices of the New York Automobile Trade Associ-

September 21.—Stock Car Sweepstakes on Long Island course, under direction of Motor Contest Association, W. J. Morgan, manager.

September 21-23.—Good Roads Convention of the American Automobile Association at Cleveland, Ohio.

September 21-29.—Frank A. Munsey reliability tour from Washington to Boston and return.

September 24-25.— Twenty-four hour race and short distance events, Indianapolis Motor Speedway.

September 24-26.—Third 24-hour race at Brighton Beach, New York, under the direction of the Motor Racing Association.

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- September 24-October 3.—Aeroplane meeting at Lyons, France.
- September 25-October 8.—Aeronautical events in connection with the Hudson-Fulton celebration, New York.
- September 30.-Floral Automobile Parade, under direction of the Washington, D. C., Automobile Club.
- September 30-October 8.—Exhibition of aeronautic motor engines at Paris.
- October 2-17.—Aeronautical Salon in the Grand ' Palais, Paris, France.
- October 4.—Dirigible balloon and aeroplane events, under the direction of the Aero Club of St. Louis.
- October 7.—Second Annual Stock Chassis Race in Fairmount Park, Philadelphia, under the auspices of the Quaker City Motor Club.
- October 8-9.—National automobile race, Indianapolis Motor Speedway.
- October 8-9.—First annual reliability and economy contest of the Louisville (Ky.) Automobile Club.
- October 9-24.—Aeroplane meeting at Marseilles, France.
- October 15, 16, 17.—Three-days of aviation contests at the Indianapolis Speedway grounds.
- October 16.—Start from Denver, Colo, of the Flag-to-Flag reliability run.
- October 16-31.—Automobile Show, to be held in City Park Armory, Dallas, Texas, in connection with the Texas State Fair.
- November 6 to 13.—National Automobile Show in Auditorium Armory at Atlanta, Ga. Auspices of National Association of Automobile Manufacturers. Samuel A. Miles and Alfred Reeves, managers, 7 East 42nd Street. New York.
- December 29-30.-Fourth Annual Mid-Winter En-· durance Contest, under direction of the Quaker City Motor Club.
- December 31-January 7.—New York City, Grand Central Palace; Tenth International Auto-Under management of the mobile Show. American Motor Car Manufacturers' Association with the Importers' Automobile Salon and the Motor and Accessory Manufacturers. Alfred Reeves, general manager, 505 Fifth Avenue, New York City.
- January 8-15.—Tenth Annual National Automobile Show in Madison Square Garden, New York, under the auspices of the Association of Licensed Automobile Manufacturers.
- February 5-12.—Ninth Annual National Automobile Show in Chicago, under the auspices of the National Association of Automobile Manufacturers.
- February 22-26.—Fourth annual Automobile Show in Convention Hall, Kansas City, Mo.

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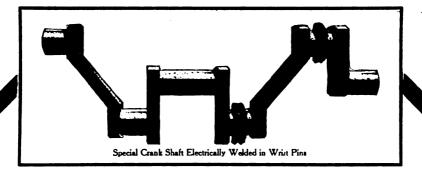
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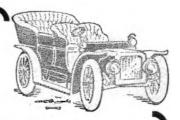
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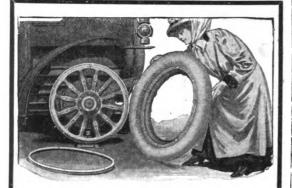
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Vol. XVIII.

NEW YORK, SEPTEMBER 18, 1909.

TABLE OF CONTENTS

No. 24.

	PAGE
Touring from Chicago to Boston and Return—Wm. P. Doerr and Nephew in a 15-30 hp. Stearns	
15-30 hp. StearnsFrontispiece	1594
Topics	1595
Vanderbilt Race to be Run October 30	1597
Elco-Craig Capsized in Hudson River Races	1507
Judge Hough Decides in Favor of Selden Patent	1598
Lack of Entries and Competition in Richmond Meet	1601
Curtiss May Fly During Hudson Celebration	1602
Next Year's Aviation Contest Under Discussion	1603
National Grange Leaders in Good Roads Convention	1604
Prizes for Motorboat Competition at Yonkers	1605
Brescia Honors Go to Curtiss	1606
Dirigible Balloon Takes Part in War Game	1607
De Palma Mows Down Records at St. Paul	1608
Vagaries of Gear Ratios	1600
Thirty-seven Cars in Munsey Run	1610
Roads to Be in Apple-Pie Order for This Race	1611
Premier Owners Run to Cape MayIllustrated	1612
A. M. C. M. A. Transacts Much Business	1614
To Lay Brick Pavement on Speedway	
Making a Business Trip of 5,000 Miles	
Automobile Topics Touring Supplement-New York to Boston. First Section-	
New York to Hartford	1617
Cleveland Man Invents a Balloon Gun	1621
Grade Crossings Still a Peril to Motorists	
Narrow-Waisted Bodies	
Great Diversity of Design in Aeroplane Engines	1624
Mitchell Ranger Nears Pacific Coast	1626
A Comparison of Horse Powers	
A Combination of Rare Excellence Editorial	
Against Imposition of Both Kinds	1635
"New Series" 15-30 hp. Stearns for 1910Illustrated	1633
New Mora Light Four for 1910	
Firestone to Erect a Big Factory	
On the D. & C. Line in September.	
Index to Advertisers	
News Notes	
Incorporations	
Automobile Calendar	
Automobile Calendar	1049

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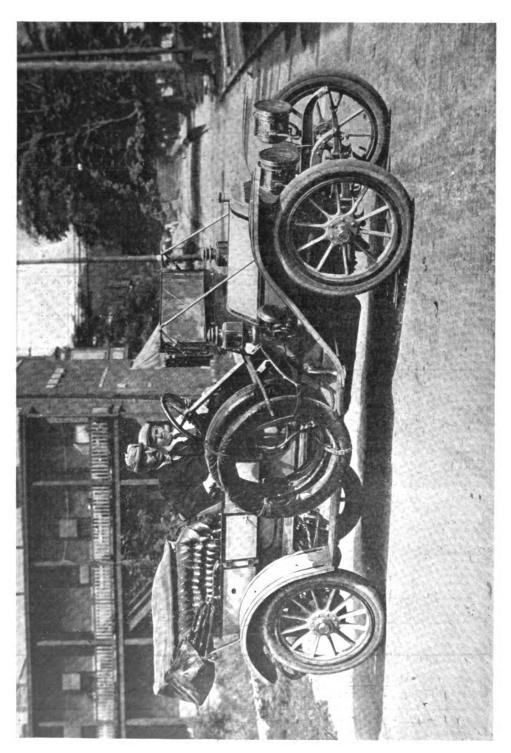
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THE AUTOMBILE USERS' WEEKLY

Vol. XVIII.

NEW YORK, SEPTEMBER 18, 1909.

No. 24.

TOPICS

Tourists who make journeys which take them into a number of different States complain bitterly, and with reason, of the incon-

venience to which they are subjected in so doing. It is true that some of the rigors of the law have been abated and that other States, notably Pennsylvania, are to mitigate the harshness of their statutes on January 1. But there is still plenty to complain of, as tourists know to their cost. The case of the motorist who drives from the West to a New England resort, for example, has often been remarked upon. He must spend weeks in obtaining the necessary licenses and registration certificates and pay for and carry with him a choice and varied assortment of tags, seals and certificates, to be displayed, concealed and held in readiness as varying conditions may require. And when it is borne in mind that the price of these precious certificates, etc., is steadily rising, it will be seen that even the pecuniary side of it becomes a serious matter.

But the motorist who undertakes even a short tour has no sinecure. If we imagine a New Yorker passing through New Jersey, Pennsylvania and Delaware into Maryland—an easy day's journey—we find him undergoing many trials and tribulations. When he crosses the Hudson River he must equip his car with the license previously secured from the New Jersey Secretary of State, applying to the front and back of his car; then he drives to the Pennsylvania border and nerves himself for another ordeal. All registration numbers or marks must be removed and those issued by the State of Pennsylvania substituted. This can be done in twenty minutes or so, if matters go smoothly, after which the journey may be resumed. A few miles further on Delaware is reached, and here the Pennsylvania licenses must be taken off and those of New York, or some other State which recognizes Delaware's licenses, put in their place. Even this is not all. In Delaware he must be prepared to prove that he is a bona fide resident of the State whose registration tag he carries; otherwise he is liable to arrest and fine.

Chauffeurs of Washington, D. C., have organized a Chauffeurs' Protective Associated and affiliated as a union with the Knights of Labor. The new organization's policy will be to expel from its ranks any chauffeur convicted of joy riding.

Courts take their own time in rendering decisions, and when they are actually rendered there are always, or nearly always, other courts to review their actions. Hence, the decision in the Selden patent case cannot be regarded as either conclusive or final; but it will undoubtedly have the effect of galvanizing into new life a case which, in some quarters, had come to be regarded as a matter that was tied up for many years to come. At any rate, our lawyer friends have not been altogether idle all this time.

Good roads will be the topic at Cleveland next week, and there is every indication that the farmer will stand, or sit, beside the motorist and cry "aye" to every plea made for highway betterment. This is as it should be, and that such a condition has come about is about the best augury for a settlement of the matter as it ought to be settled. Good roads pay—pay everybody who uses them, or would use them if they were improved.

Chasing small bands of elk and a big bear in an automobile are among the recent adventures of an Oregon man. The elk were encountered near the head waters of Birch Creek, while the bear was found near Meacham, on the summit of the Blue Mountains.

Santos-Dumont is to make his reappearance in the aviation field. It is only a few years ago that the Frenchman's exploits attracted widespread attention, but since then his feats have been quite thrown into the shade by the performances of the Wrights, Curtiss, Bleriot and others.

The residents of Gate City, Va., were surprised last week when an automobile passed through their town. It was the first motor-driven vehicle that had ever used the highways of the town.

The Spanish military authorities have found a new use for automobile goggles. It is reported that, owing to the tremendous heat and sandstorms in the Riff district of Morocco, arrangements are being made in Madrid to send about 30,000 pairs of goggles for the use of the Spanish troops.

"Wouldn't think I was getting the trade news without having it served up through your columns," writes W. P. Berrian, manager of the Stoddard- Dayton Automobile Company, of Philadelphia.

Word comes from Paris that a number of the most famous dressmakers and costume designers of that city have been busy perfecting designs with the aid of aeroplanists (sic) and the result is the exhibition of what is considered a suitable dress for sky riding. It is rather advanced, but then the woman who goes aeroplaning is an advanced woman, and it is known that skirts have no business in an aeroplane. The costume consists of a waterproof hood, a heavy woolen sweater, canvas knickerbockers, army puttees and stout shoes. A pair of automobile gauntlets, and, if desired, goggles, complete the costume.

Vanderbilt Race to Be Run October 30

A stock chassis race for the classic American speed trophy—the Vanderbilt Cup—is now a certainty. Saturday, October 30, is the date selected, and the course will be a combination of Long Island Motor Speedway and Nassau County, N. Y., roads, as was the case last year, but it will be a shorter circuit and a shorter race as well.

Definite information concerning the race was given out this week by the Manufacturers' Contest Association, accompanied by the statement that application for a sanction had been made to the Contest Board of the A. A. A. The announcement is as follows:

The race this year will be similar to the Motor Parkway Sweepstakes held on Long Island, October 10. 1908, which proved spectacular and decidedly interesting. Four classes of cars will compete simultaneously, according to classifications recommended by the General Rules Committee of the Manufacturers' Contest Association; the smaller cars being stopped at different shorter distances, leaving the larger ones competing for the Vanderbilt trophy, to hold the stage for the final round of the course.

The Vanderbilt Cup will be open to stock chassis in Class I (45I to 600 cubic inches piston displacement), and Class 2 (30I to 450 cubic inches piston displacement), both running in one class for a distance of approximately 275 miles. Trophies will be offered for stock chassis in Class 3 (23I to 300 cubic inches piston displacement) at approximately 205 miles, and Class 4 (16I to 230 cubic inches piston displacement) at approximately 135 miles, while special trophies will be awarded to the winner in Classes I and 2, competing in unison for the Vanderbilt Cup.

Entry blanks now in the hands of the printers will be mailed from the new office of the Motor Cups Holding Association, Denton Building, Mineola, L. I. The entry fee for Classes 1 and 2 will be \$500 for each car and that for Classes 3 and 4, \$250, for each.

A meeting of the Motor Cups Holding Association took place on Monday afternoon last, at which details of the race were acted upon, and the definite announcement of a race authorized by Mr. Vanderbilt.

The course as tentatively selected, is triangular with each side practically straight. The turns can be easily negotiated.

Elco-Craig Capsized in Hudson River

The Annual National Motor Boat Carnival, on the Hudson River, under the joint auspices of the New York Motor Boat Club and the Motor Club of America, opened on Wednesday, September 15. The high-speed motor boat Elco-Craig furnished the sensation of the day, when it capsized near Spuyten Duyvil, while it was competing in the main race of the day, a 30-mile event.

Traveling at an average speed of about 26 miles an hour, the craft turned over when its pilot gave it a quick turn to avoid striking a log. The two occupants of the boat, Irwin Chase, who was in charge, and William T. Roy, the en-

gineer, very narrowly escaped drowning. The Dixie II. was the winner of the race in the elapsed time of 1 hour, 14 minutes, 34 seconds.

In the 33-foot and under class for high-speed boats, the Den, owned by J. W. Hoadley, won on elapsed time, but the Radajr, owned by H. Darlington, was credited with the victory on corrected time. The Avis, owned by F. C. Haven, had no difficulty winning the 60-foot and over pleasure craft class, over a 20-mile course.

The Ilip was the only starter in Class E, for pleasure craft, while the Telequab won the class for pleasure craft in Class G.

Judge Hough Decides in Favor of Selden Patent

Long expected, in some quarters with apprehension, in others with confidence, the long-deferred Selden patent decision came this week, and proved to be in support of the plaintiff, thereby sustaining the claims of Geo. B Selden and the A. L. A. M., which is back of his claims.

In the U. S. Circuit Court, on Wednesday, September 15, Judge Hough gave out his finding in the famous case, which was in the form of suits for infringement of patent claims instituted by the Electric Vehicle Company and George B. Selden against the Ford Motor Company and C. A. Duerr & Co., the O. J. Gude Company, John Wanamaker et al. the Societe Anonyme des Anciens Etablissements, Panhard & Levassor and Andre Massenat and Henry and A. C. Neubauer. The court holds that the Ford machine infringes the patent claims one, two and five of the complainant and that the Panhard infringes claims one and five.

The concluding paragraphs of Judge Hough's decision were as follows:

No litigation closely resembling these cases has been shown to the Court and no instance is known to me of an idea being buried in the Patent Office until the world caught up to and passed it, and then embodied in a patent only useful for tribute.

But patents are granted for inventions. The inventor may use his discovery, or he may not, but no one else can use it for seventeen years. That seventeen years begins whenever the United States so decrees by its patent grant. That the applicant for patent rights acquiesces in delay, or even desires delay, is immaterial to the courts so long as the statute law is not violated. On these principles complainants are entitled to a decree.

Claim number one, regarded as the most important, on which the courts holds both the Ford and Panhard machines have infringed, is as follows:

The combination with a road-locomotive, provided with suitable running gear including a propelling wheel and steering mech-

anism, of a liquid hydrocarbon gas engine of the compression type, comprising one or more power cylinders, a suitable liquid fuel receptacle, a power shaft connected with and arranged to run faster than the propelling wheel, an intermediate clutch or disconnecting device and a suitable carriage body adapted to the conveyance of persons or goods, substantially as described.

Claim number two, of which it is held that the Ford machine is an infringement, varies from number one only in requiring the "suitable carriage body" to be "located above the engine." The fifth claim which is held to be infringed by both the Ford and Panhard sets forth substantially the same combination but describes specifically the engine as comprising a plurality of cylinders with pistons arranged to act in succession during the rotation of the power shaft.

The complainant alleged that all three of the claims enumerated were infringed by all the defendants.

"This statement of complainants' position," says Judge Hough, "seems sufficient to show that the subject matter of these suits is the modern gasolene automobile. The defendants are severally the manufacturer! seller and user of the Ford machine (a well-known American make) and the maker and importer of the Panhard, a celebrated and typical French product. If these defendants infringe, it is because complainants own a patent so fundamental and far-reaching as to cover every modern car driven by any form of petroleum vapor, and as yet commercially successful."

After entering into a detailed discussion relative to the mechanical issues at stake, Judge Hough says:

If I have correctly apprehended it, there was clearly room for a pioneer patent, and it must now be held that on its face and in view of the art Selden's is such a patent. This means that Selden is entitled to a broad range of equivalents, and this rule as applied here results in this crucial inquiry—Was Selden (or anyone else) entitled in 1879 to appropriate as one of the elements of any patentable combination a

"liquid hydro-carbon gas engine of the compression type."

Immediately upon the giving out of the decision the A. L. A. M. issued the following statement:

Decision was filed in the U. S. Circuit Court for the Southern District of New York, by his Honor Judge Hough, this morning, September 15, in the famous suit under the Selden Patent on gasolene automobiles.

The decision holds that the claims of the patent on which suit was brought are valid and infringed. The decision is voluminous, reviewing the entire case, and concluding that the invention of George B. Selden, of Rochester, N. Y., is a pioneer invention of very great merit. It holds that Selden is the first in this art, and broadly construes claim I, so that it covers all gasolene automobiles.

The test cases in which this decision is rendered comprises suits against an American manufacturer, against selling agents for automobiles and against importers of automobiles, as well as against a user of an infringing automobile. Currently there have been over fifty other suits pending, and decision in all of them has practically awaited the result of the decision of the Court in what became known as the test cases brought against an importer of a machine known as the "Panhard" and its American agent, and the American agent of the "Renault" machine, as well as the manufacturer and agent and a user of a car known as the "Ford."

While it has generally been considered that the industry for six years past was divided into two camps, this was owing to the fact that in March, 1903, the principal manufacturers of gasolene automobiles in the United States, acquired license under the Selden patent, recognizing its validity. These principal manufacturers include almost without exception every company that was manufacturing gasolene automobiles in 1902. In view of this, the decision now rendered affects the newcomers in the business: that is, companies started within the last few years, as well as all foreign automobile manufacturers whose product is being imported into the United States. with the exception of those cars handled by agents licensed to import certain specific foreign-made gasolene automobiles.

The cases in which the present decision was rendered were argued before Judge Hough for six days at the end of May and beginning of June, 1909. In submitting the cases the record, which has been accumulating for the past five years, amounted to over 8,000 printed pages of testimony. The decision was rendered, therefore, with unusual promptness. Unlike many important patent cases, this decision comes more than three years before the expiration of the patent. The argument of this important case was made by Wm. A. Redding, Esq., Samuel R. Betts, Esq., and Frederick P. Fish, Esq., for the patent, and the defendants were represented by Messrs. Parker, Coudert, Murray and C. Benton Crisp.

The American manufacturers who will not be adversely affected by this decision are the licensees comprising the Association of Licensed Automobile Manufacturers, as follows:

American Locomotive Co., Apperson Bros. Auto Co., Autocar Co., Buick Motor Co., Cadillac Motor Car Co., Chalmers-Detroit Motor Co., The Columbia Motor Car Co., Corbin Motor Vehicle Corp., Elmore Mfg. Co., Everitt-Metzger-Flanders Co., H. H. Franklin Mfg. Co., Haynes Auto Co., Hewitt Motor Co., Hudson Motor Car Co., Knox Auto Co., Locomobile Co. of America, Lozier Motor Co., Matheson Motor Car Co., Packard Motor Car Co., Peerless Motor Car Co., The Pierce-Arrow Motor Car Co., The Pope Mfg. Co., Royal Tourist Car Co., Alden Sampson, 2nd, Selden Motor Vehicle Co., F. B. Stearns Co., Stevens-Duryea Co., Studebaker Auto. Co., E. R. Thomas Motor Co., Toledo Motor Co., Walter Automobile Co., Waltham Mfg. Co., Winton Motor Carriage Co.

Nor were the "independents"— i. e., the A. M. C. M. A., which has in its membership most of the concerns out of the "licensed" fold—entirely idle. Henry Ford was communicated with on the long distance telephone, and gave out the following statement:

"This is the first decision in the lowest court, and, of course, it will be carried to the highest courts. We will fight it to a finish, and it will be years before a final settlement will be made."

The Selden patent No. 549,160 was granted to G. B. Selden on November 5. 1895, the application having been filed May 8, 1879. The claims of the patent are thus briefly stated:

"A self-propelled vehicle comprising steering wheels and steering mechanism, driving wheels, a hydrocarbon engine of the compression type, the engine shaft running at a speed greater than the driven wheels, and disconnecting means between the engine and the driven wheels, the engine being such as to permit the inclusion in the combination of a body adapted for persons or goods.

"There are six claims in all, and some of the other claims relate to other features of construction. The main claims, summarized above, cover all the combinations of the elements which have been found essential and which are today embodied in one form or another in all so-called gasolene automobiles. The patent will expire November 5, 1912."

Riverhead Race Date Changed

There has been some delay getting the official sanction for the Riverhead, Suffolk County, Long Island, road races, owing to the fact that the value of the prizes were not given and the entrance fee being above what the A.A.A. rules called for. The promoters had this in mind when the first entry blanks were gotten out, but as they had decided to divide the profits of the meet with the winning drivers in each class, they believed this would meet with the approval of the Contest Board.

The matter was finally settled at Lowell, when W. J. Morgan and A. D. Corwin, of the Motor Contest Association of New York, met Chairman Hower and members of the Contest Board, when it was decided new entry blanks should be gotten out for the Riverhead-Mattituck race, in which the price conditions were stated, and George Robertson was nominated to look after the drivers' interest, Alden McMurtry

being appointed as representative of the Contest Board to supervise the race.

The date was put back eight days. Instead of being on September 21, the Long Island Stock Car Derby will be run on September 29, when the five classes from \$851 to \$4,001 and over, according to A. A. A. specifications, will be raced. The trophies will consist of prizes tendered by Long Island towns, the Long Island Railroad and others, in addition to the division of half the profits of the meet, if any, among the winning drivers.

The course is now being thoroughly oiled and improved in every way possible, the county having agreed to lay the oil supplied by the Standard Oil Co. The course has been declared by such authority as A. R. Pardington, Frank G. Webb and such noted drivers as Robertson, Strang, Ralph De Palma and others as being very fast.

Dirigibles Enter for New York-Albany Flight

Entries for the airship races which will be held under the auspices of the Aero Club of America during the Hudson-Fulton celebration, closed on Wednesday, September 15. The entrants are Capt. Thomas S. Baldwin, dirigible balloon; George L. Tomlinson, dirigible balloon, and John Roeder, aero torpedo.

In order to win the prize of \$10,000, a contestant must make the flight from 120th Street and Riverside Drive to Ten Eyck Park, near Albany, without an intermediate landing. In event of a failure to make a successful start, the aeronauts will be allowed to return to the starting post and make a fresh attempt.

Lack of Entries and Competition in Richmond Meet

The race meet at the State Fair track in Richmond, Va., on Wednesday, September 8, did not prove as successful an affair as was anticipated, because of the lack of entries and the absence of real competition in the various events. Of the six races on the program, the 50mile event was the only one that aroused any enthusiasm in the 2,500 persons that had gathered at the track. S. A. Luttrell, of Washington, D. C., driving a Buick, carried off the majority of honors by winning first prize in four events, and E. F. Ray, of Richmond, was second, winning two races. won one event in a Stevens-Duryea and the other in a Chalmers-Detroit.

The main event on the program was the 50-mile stripped chassis race, which was won in a Chalmers-Detroit, with King in a Buick acting as runner-up. Five cars started in the race, two Chalmers-Detroits two Buicks and an Oldsmobile. At the start Luttrell, in a fully equipped Buick, and Ray, in a Chalmers-Detroit, went to the front and had an interesting duel, until Luttrell experienced considerable tire trouble and was forced to go to the rear. From the twelfth mile Ray maintained a comofrtable lead and finished the race with a flat tire, some distance in advance of the second car. Ray also won the special prize for the fastest mile made during the race. His time for the mile was I minute 12 seconds, while his time for the half century was I hour 2 minutes 55 seconds. King's time was I hour 6 minutes 10 seconds.

Beautiful cups were offered as prizes to the winning drivers by several Richmond hotel owners and motorists. The first event was a five-mile motorcycle race for twin-cylinder machines, which was won by J. B. Anderson by nearly half a mile. Anderson also won the five-mile motorcycle race for single-cyl-

inder machines. The first automobile event was for tourabouts costing \$1,250 and under, and was won by Luttrell in a Buick, after a Hudson driven by Ray had met with a mishap on the second lap.

The second event, a five-mile race for stock touring cars costing from \$2,000 to \$3,000, was won by Ray in a Stevens-Duryea, after a White steamer had retired. Luttrell won an easy race in the class for stock touring cars costing \$2,000 or less, when the wheel on the only other entrant, a Crawford, came off early in the race. The Buick driver repeated his performance in the next event, a ten-mile race for stock runabouts and tourabouts costing from \$1,250 to \$2,000. He won from Ray in a Chalmers-Detroit by half a mile.

Luttrell also won the fifth event, a ten-mile free-for-all handicap. H. C. Sutton's Royal Tourist received a mile and a half handicap, but Luttrell, in his Buick, soon overhauled it and from then on had a commanding lead, finishing one minute in front of King, in a Buick. Luttrell's time was 12 minutes 52½ seconds.

Commissioner Smith After Transgressors

J. B. R. Smith, New Jersey Commissioner of Motor Vehicles, continues his active campaign for the suppression of reckless automoble drivers, and as a result two more chauffeurs had their driving licenses revoked. Bert N. Hickok, who was charged with reckless driving and drunkenness in Monmouth County and at Ocean County shore resorts, is on of the drivers to lose his license, while the other is Charles Barker, of Philadelphia, who was charged with running the car of his employer into a buggy at Point Pleasant, serious injury resulting to the occupants.

Curtiss May Fly During Hudson Celebration

Glenn H. Curtiss, the American aviator who secured chief honors at the recent European aeronautic meets held at Rheims. France, and Brescia, Italy, respectively, sailed for home on Wednesday of this week. Very tempting offers were made him to remain and take part in meets at Frankfort and Berlin, but he decided to return in spite of these. Curtiss will probably make flights during the Hudson-Fulton celebration.

With regard to the Hudson-Fulton celebration, Mr. Curtiss explained before sailing that despite statements to the contrary he had never signed a contract to fly during the festivities, but only entered into a preliminary agreement with William J. Hammer, secre-

tary of the Committee on Aeronautics, which bound neither party, the understanding being that a contract should be signed later.

The contract, he said, was sent to Paris by the Hudson-Fulton officials, accompanied by a deposit, but Mr. Curtiss found several clauses unacceptable. He amended the contract and returned it to New York with the deposit. If the committee accepts the contract as amended, he says, he will sign it on his arrival, and do his utmost to fly up the river as proposed.

Mr. Curtiss added that he had received many orders for aeroplanes from all parts of Europe, but that he could not accept many of them, as he could not guarantee early delivery.

Santos-Dumont's Small Aeroplane Very Fast

Santos-Dumont came into the aeronautical limelight again this week, when he made an aeroplane flight in Paris, and he attracted much attention on account of the diminutive size of his machine. His flight, although short, was made at an estimated speed of 55 miles an hour.

The machine weighs, together with the pilot, only 118 kilograms (259.6 pounds). It has nine square yards of surface as against twenty-two square yards in the Curtiss aeroplane, twentysix in the Bleriot, and fifty-three in the Wright machine. A two-cylinder motor developed thirty horsepower and ran at the rate of 1,800 revolutions a minute.

The most striking feature in the appearance of this aeroplane is the short and broad wing, tilted at a high angle.

It has no tail, and its general appearance is that of a quail.

Much Interest Taken in Balloon Races

Considerable interest is being taken by devotees of spherical ballooning in the contest for the James Gordon Bennett cup at Zurich, Switzerland, and the free balloon contests of the Aero Club of St. Louis, Mo., which take place on October 3 and 4, respectively. E. W. Mix, the sole representative of this country among the twenty entrants at Zurich, has selected Cortlandt Field Bishop, president of the Aero Club of

America, to accompany him as aide. The St. Louis meeting will be notable as the deciding contest for the Lahm cup, instituted by the Aero Club of America, to commemorate the victory of Frank P. Lahm, its representative in the first contest for the Bennett cup in October, 1906. The cup became the absolute property of the winner, and is open to all spherical balloons, dirigible balloons and flying machines.

Next Year's Aviation Contest Under Discussion

As a result of Glenn H. Curtiss's victory in the International Aviation Cup contest, aviation enthusiasts throughout the United States are discussing the possibilities of conducting in this country a meet similar, if not larger, than the successful one recently held at Rheims, Naturally, the Aero Club of France. America is the central figure in these discussions, but the members of that organization recognize that if any effort is to be made to bring the star aviators of Europe to this country, larger prizes than those given at the recent Rheims and Brescia meets will have to be offered.

Enthusiasts from many cities in this country have made offers of prizes for the contests to be held in their city next year. The Aero Club of America recently received a letter from a man representing a syndicate in Cincinnati, promising that a guarantee of \$100,000 will be forthcoming if that city should be selected by the Aero Club of America for the international meet. Other cities are also guaranteeing large sums.

The projectors of the Aero Club's exhibition declare they are determined to raise a fund of \$100,000, and the chief prize will be \$25,000 at least. They also declare that aviation is making such tremendous strides in Europe, and the rewards for successful work in that field are so liberal, that large inducements must be offered to Bleriot, Latham, Farman, Paulhan and the fifty other air navigators to get them to cross the Atlantic.

Despite the number of offers of sites for the prospective meet the general preference of the directors of the Aero Club is on Hempstead Plains, L. I. It is said that no better ground in this country could be found for long and safe flying tests. The Aero Club lately made arrangements with the Long Is-

land Motor Parkway whereby a section of ground not far from Garden City has been set apart as the club's aviation ground, and this may be used as the nucleus for the big competition. To properly equip the grounds for a large meet would necessitate the outlay of a large amount of money, but the projectors of the meet are almost certain that the first big aviation meet in America would attract considerable interest.

So far as the preparations for next year go, the directors of the Aero Club have as yet taken no action. They are leaving everything until the return of President Cortlandt Field Bishop, who will come home immediately after the international balloon race at Zurich, Switzerland, October 3, in which Mr. Bishop has consented to act as aid to E. W. Mix, who will pilot the American balloon, using the one made last year for James C. McCoy.

The rules for the International Cup contest must be announced by January I, but the exact date and place need not be named until April I. The delegates of the International Aeronautic Federation will probably meet in Paris in December to discuss the regulations for the 1910 cup contest, and some definite statement as to what America proposes to do will undoubtedly be presented to the delegates at that time.

Preparing for Celebration Week Flights

Wilbur Wright is expected to arrive in New York at the end of this week to supervise the preparations for the flights he is to make in his aeroplane from Governor's Island during the Hudson-Fulton celebration. The aeroplane shed on the southeastern end of the island is about ready to house the machine, which will probably reach New York early next week.

National Grange Leaders in Good Roads Convention

On Tuesday of next week—September 21—the second annual National Good Roads Convention will open at Cleveland, O. It will undoubtedly be the most important meeting of its kind ever held in the United States, and one of the most gratifying matters in connection with it is the way members of the National Grange are evincing interest in it. Some of its most prominent officers will be among the speakers, and they will discuss a number of the most important phases of the good roads movement in America to-day.

Ex-Governor N. J. Bachelder, of New Hampshire, and the present Master of the National Grange, will be one of the principal speakers on the opening day, September 21, his subject being "The National Grange and Good Roads." He will be followed by George S. Ladd, a special good roads lecturer of the National Grange, who will speak on "The New England Plan for Connecting Lines of Trunk Highways." On the following day T. C. Laylin, Master of the Ohio State Grange, will speak on "The Farmers' Interest in Road Improvement," and F. N. Godfrey, Master of the New York State Grange, will tell of the work being done by the New York Grange members and the good roads legislation in the State.

The National Grange, in conformity with the resolution adopted at its annual meeting a year ago, to the effect that the Grange favors the general policy of good roads construction by the various municipalities, counties and States, and that it also advocates the enactment of legislation by Congress making Federal appropriation for the improvement of highways, is lending its enthusiastic support to the bill recently introduced in Congress by the Hon. Frank D. Currier, of New Hampshire, providing for the creation of a National Highways Com-

mission. The bill has been heartily endorsed by the various State granges throughout the country, showing clearly the increasing interest of the farmer in good roads and the realization of their benefits. "The farmers recognize the need for better roads, and realize how largely such roads would contribute to their comfort and prosperity," said National Grange Master Bachelder in a recent address. "They are anxious that well-considered plans for road improvement should be submitted to the State and National Legislatures and will do all in their power to aid in securing the adoption of such plans. They have made up their minds that Congress must devote a share of the annual appropriations to the construction and maintenance of our roads. National aid will not lessen local road activity. contrary, the roads constructed with federal assistance will serve to stimulate everywhere the desire for better roads, and will be the means utimately of giving the entire country a uniform system of scientifically constructed public highways."

The order of the Grange, or Patrons of Husbandry, was founded forty-two years ago, and now has affiliated branches in twenty-eight States, with a total membership of one million. The unit of the order is the local grange, composed of the farmers of one community. The National Grange is the national organization, composed of the masters of the State granges, each State having equal representation. The farmers of the country were virtually the first real road makers, and in many localities the work of maintaining the roads is still in the hands of the farmer. One of the big features in the grange movement for good roads that is now assuming a practical form is the proposition for the construction by the New England States

of trunk lines of highways. This subject was recently presented before the New England State Governors by the State Highway Commissioner of Con-

necticut, James H. MacDonald, and as a result of the action taken, plans are under way to present the matter before the Legislatures of the different States.

Prizes for Motorboat Competition at Yonkers

A number of cups and medals have been selected as prizes for the winners of the motor boat races to be held on the Hudson River at Yonkers on Wednesday, September 29, in connection with the Hudson-Fulton Celebration. The contestants will be divided into four classes, of different lengths and speed, the high-speed boats being required to cover a thirty-mile course, while for the smaller boats a ten-mile course has been selected. The events will be as follows:

Class A.—High speed motor boats over 33 feet overall length. No time allowances. Distance, 30 nautical miles. Triangular course.

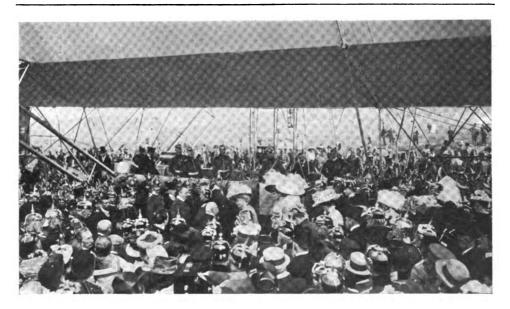
Class B.—High-speed boats, 33 feet and under and over 26 feet over-all length. Time allowances per American Power Boat Association rules. Distance, 30 nautical miles. Triangular course.

Class C.—High-speed boats of 26 feet and under over-all length. Time allowances per American Power Boat Association rules. Distance, 20 nautical miles. Triangular course.

Class D.—High-speed cabin boats and boats with standing tops. No restriction as to the length. Time allowances per American Power Boat Association rules. Distance, 20 nautical miles. Triangular course.

Airships in Boston Exposition

Airships will play an important part in the Boston, Mass., "1915" exposition during November. The exhibition, which will cover practically the entire field of aviation, will contain aeroplanes, biplanes, monoplanes and dirigibles of various designs, from toy size to a scale approaching that of the largest models.



THE WELCOME TO COUNT ZEPPELIN UPON HIS ARRIVAL AT TEGEL

Brescia Honors Go to Curtiss

Glenn H. Curtiss, the American aviator, added to the honors he won at the aviation meet at Rheims, France, by practically making a clean sweep of the principal events at the aeroplane contests at Brescia, Italy, which ended on Sunday, September 12. The sole American representative at the meet won the Brescia grand prize and also first prize for quick starting and second prize in the height competition. He rose 51 meters, or about 166 feet. Curtiss' winnings amounted to about \$0,000. Curtiss did not compete in the passenger carrying event, which was won by Lieutenant Calderara.

The meet held in Italy was far from being as successful as the recent one at Rheims; Curtiss, the American, and Bleriot and Rougier, the French aviators were the only ones that controlled their machines without difficulty, while a number of other contestants, including several Italian army officers, met with but little success in their attempts to soar through the air. Unfavorable weather conditions prevailed during the meet and on one day, September 10, the thousands of persons who visited the course, were so enraged when it was announced that no flights would be made owing to the high wind, that it was all the soldiers could do to prevent them from mobbing the aeroplane and official sheds.

The first day of the meet, September 8, resulted in a few flights and several accidents. Among those who met with mishaps was Louis Bleriot, whose machine collided with a tree and broke a propeller. Lieutenant Calderara also met with an accident. On the following day better success was met with by the aviators and more flights resulted. Starts were made in the Grand Prize, five circuits of the 6.21-mile course, and the quick starting race.

In order to avoid penalization, Glenn Curtiss crossed the line in the Grand Prize, but did not make an effort to do any fast flying. He also took part in the quick starting event and succeeded in leaving the ground 90 yards from his starting point and covering the distance in the prescribed time. On a second attempt Curtiss left the ground in 80 yards, his time being 8 1-5 seconds. This prize was to be given to the aviator starting within 60 yards, but as no contestant fulfilled this condition, the distance was extended to 100 yards. The other aviators did not equal the American's mark, and the prize was awarded to Curtiss.

On Friday there were no flights owing to the velocity of the wind. first real enthusiasm was shown by the spectators on the fourth day of the meet, when Glenn Curtiss started in an attempt to win the Brescia Grand Prize. Curtiss made the flight of 50 kilometers (31.05 miles) in 49 minutes and 24 seconds, which time was not equalled by the other contestants and Curtiss was awarded the main prize of the meet. After completing his flight Curtiss received an ovation from the spectators and rival aviators. After the many disappointments of the first three days of the meet, the crowd was wrought up to a high pitch and Curtiss was cheered at each round, the aeroplane moving swiftly without the least sign of pitching of rolling.

The first lap was covered in 10 minutes 42 4-5 seconds; the second in 9 minutes 46 3-5 seconds; third, 9.49 2-5; fourth, 9.59 4-5, and fifth, 9.55 2-5. Curtiss kept at a height varying from forty to fifty feet, but he took each turn rather wide. The daring American aviator summed up his experience during the flight by saying the wind drifted the aeroplane sideways. Hence he cov-

ered 35 miles instead of 31. Curtiss declared his intention was not to beat the speed record, but to merely cover the distance and consequently he went at a slow speed.

Curtiss' flight, which was made about 6 o'clock in the evening, was the most important one of the day. Early in the afternoon Bleriot, Leblanc and Rougier successfully made test flights in preparation for the final day of the meet, when passenger, quick starting, height and distance prizes were to be competed for. Neither Bleriot's or Rougier's machines were working properly, but the latter aviator started unofficially for the height prize and flew for eighteen minutes at an altitude of 132 meters.

The final day of the meet brought a tremendous crowd to the course. Aviation enthusiasts from every section of the world were gathered around the 6.21-mile course. An attempt was made by Rougier to surpass the time made by Curtiss in his trial for the Brescia Grand Prize, but the best time the French aviator could make for the five circuits of the course was I hour IO minutes 18 seconds. This time was more than II minutes slower than that made by Curtiss and as no one else attempted to wrest the prize from him, Curtiss was awarded the winner's share of the \$10,000, \$6,000. while Rougier was awarded second place.

Bleriot made several brilliant flights, but he did not compete for the Grand Prize, after which Curtiss entered for the altitude prize. He ascended to a height of 51 meters (about 165 feet), thereby gaining second prize, while the first prize was awarded to Rougier, who danced around with delight, saying:

"Curtiss is a true gentleman. He might have gone higher than I, but he promised to leave me the first prize,

and he kept his word. This is real American chivalry."

Rougier's record was 100 meters. Lieutenant Calderara, using a Wright machine, succeeded in flying. He won the passenger prize and also the national prize for a distance of I kilometer (six-tenths of a mile). Curtiss did not compete in the passenger prize, although he made his promised flight with Gabriel d'Annunzio, the Italian poet, the last evening of the meet. Curtiss was the only aviator who made brilliant flights, and it was his work that saved the meeting from failure. Princess Letitia watched his flgihts the last day and warmly congratulated him. She said she would willingly fly with him, and declared the King was convinced that Curtiss' aeroplane was the best and surest.

After his flight of Sunday, M. Bleriot declared that he would not fly again this year. He canceled a contract to fly at Frankfort, though the conditions there were very advantageous for him.

Dirigible Balloon Takes Part in War Game

That aerial craft may some day prove useful in actual warfare, is evidenced by the performance this week of the military dirigible balloon Gross II., in connection with the German military manœuvres at Wurtemberg. On Monday, September 13, the airship escaped successfully from the machine guns of the enemy, but it got caught in a tree in the heavy mist and was slightly damaged. At first it was rumored that the airship had been captured by the enemy.

Repairs were effected during the night, and on Tuesday morning the craft returned to its camp. During the return trip valuable observations of the opposing forces' headquarters were made.

De Palma Mows Down Records at St. Paul

Ralph De Palma did some remarkable driving at the State Fair track at St. Paul, Minn., on Saturday, September 11, when, in the Fiat Cyclone, he shattered three world's circular track records. In a one-mile race with Kilpatrick, who drove a Hotchkiss, De Palma lowered his own record for a mile, made on the same track September 5 last year. The young Brooklyn driver covered one circuit of the track in 50 4-5 seconds, which is one-fifth second better than the previous record.

De Palma lowered the three-mile record twice during the afternoon. In a match race with Kilpatrick he made the distance in 2 minues 38 seconds, which is 1 4-5 seconds better than the record made by Oldfield in his 60 hp. Peerless at Los Angeles, Cal., on December 21, 1904. The last mile of the three-mile event was made in 50 4-5 seconds by De Palma, equalling the new record established earlier in the afternoon.

De Palma also entered the lists in the ten-mile free-for-all, and made the spectators hold their breath when he reeled off the distance in 8 minutes 49 3-5 seconds, breaking his own record of 9.11 2-5, made at New Orleans. In this event, in which he reduced the world's mark 21 4-5 seconds, he drove at an average speed of a mile every 52.9 seconds. He also covered the first three miles in 2.38 4-5, equalling the new record made earlier in the day.

Michener Wins on Tanforan Track

Harry Michener, driving a Lozier car, won the first long distance track race held in Northern California when he finished ahead of a field of five in the 300-mile event for cars costing \$4,000 and over, at the Tanforan track in San Francisco, on September 5. Michener, who has piloted cars in a number of events held in the East, covered the distance in 6 hours 4 minutes, easily defeating the other four competitors.

The race was conducted under the auspices of the California Motor Racing Association, an organization formed for the purpose of holding the meet. The bad condition of track prevented a better showing being made by the contestants. The five cars to start in the race were the Lozier, Thomas, Packard, Stearns and Stevens-Duryea, and with the exception of the first named, they were piloted by local chauffeurs. Harry Ontank, at the wheel of a 1907 Stevens-Duryea, set a fast pace at the beginning and held the lead until the nineteenth mile, when a cracked cylinder necessitated repairs which consumed two hours.

After the accident to the Stevens-Duryea, the Lozier and Thomas fought it out, and at the end of the seventieth mile, the former was only 40 seconds in advance of the Thomas. Up to this time neither of the cars had left the track, but on the ninety-first mile the Thomas lost a tire, which allowed the Lozier to secure a comfortable lead, which it maintained to the end. The Lozier left the track for the first time on the 117th mile, when it changed a tire. It only made three other stops during the race. The following is the way the cars finished:

Lozier (Michener). 300 miles; Thomas Six (Shuler), 259 miles; Packard (Warner). 244 miles; Stearns (Sawyer), 232 miles; Stevens-Duryea Six (Ontank), 159 miles. Time, 6 hours 4 minutes.

Entry blanks have been issued by the Milwaukee, Wis., Automobile Club for a 24-hour race, to be run September 24 and 25.

Vagaries of Gear Ratios

There is something pathetic about the calm resignation with which most owners accept the ratio of gearing provided by the makers of their car as the absolute ideal for their needs and locality. says a writer in the Autocar. There is not a firm of any standing which does not offer a choice of gear ratios. Many owners omit to specify their special needs when they place an order, and certain firms are too shortsighted to write and ask for instructions. It follows that quite a number of cars are either over or under-geared for the districts in which they are running and for the loads they have to carry. This especially applies to chassis delivered in a naked condition for the body maker in a distant town. Few people complain about under-gearing, although the owner of a medium powered chassis who can start on top gear and do all his traffic work without a change down need not brag, for most men in his position would prefer a higher top gear ratio—not that I agree with them. Over-gearing is manifest in two respects:

- (1) If there is any hill which the car cannot negotiate on bottom speed when in good tune, the car is overgeared.
- (2) If a car always labors and threshes a little when accepting its top gear on the level, it is overgeared, and, instead of trying to look as if he were totally unconscious of his pounding engine and threshing exhaust, the owner should apply to the makers for a smaller tail pin bevel. I believe this fault is rather common, and is due to the desire of many owners of small and medium powered cars to obtain a higher maximum speed on the flat than is fair to the mechanism of the chassis



THE LITTLE HUPMOBILE, WHICH MADE A SUCCESSFUL RACING DEBUT RECENTLY

Thirty-seven Cars in Munsey Run

Thirty-seven cars have been nominated for the reliability contest which is being promoted by the Munsey newspapers, and which will begin at Washinton on September 21. The route leads through the principal cities of the East, including New York, Philadelphia, Boston, Albany, Baltimore, Hartford, Springfield and Atlantic City.

The competing cars will be run in six divisions, according to price, and there will be a trophy for the winner of each division, with a grand sweepstakes prize for the car making the most perfect score in any division. In addition, the entrance money will be divided among the six winning drivers. Following is the complete list of entries:

Tour No. 1 car, Chalmers-Detroit, entrant, Chalmers-Detroit Motor Co., Detroit, Mich.; No. 2. Hudson, Hudson Motor Car Co., Detroit, Mich.; No. 3, Mitchell, W. M. Cram, Philadelphia. Pa.; No. 4. Premier, The Motor Car Co., Philadelphia. Pa.; No. 5, Washington. Carter Motor Car Corporation, Washington. D. C.; No. 6, Stevens-Duryea, F. W. Eveland, Philadelphia, Pa.; No. 7, Ford, Chas. E. Miller & Bros., Washington, D. C.; No. 8. Jackson. Jackson Automobile Co., New York; No. 9, Maxwell, T. E. Lambert Automobile Co., Baltimore, Md.; No. 10, Oldsmobile, Olds Motor Works Branch.

Baltimore, Md.; No. 11, Maryland, Sinclair-Scott Co., Baltimore, Md.; No. 12, Pullman, York Motor Car Co., York, Pa.; No. 13, Pullman, York Motor Car Co., York, Pa.; No. 14, Spoerer, Carl Spoerer's Sons Co., Baltimore, Md.; No. 15, Columbia, Frank P. Hall, Washington, D. C.; No. 16, Croxton-Keeton, Croxton-Keeton Motor Car Co., Massillon, Ohio, No. 17. Croxton-Keeton Motor Car Co., Massillon, Ohio; No. 18, Corbin, Corbin Motor Vehicle Co., New Britain, Conn.; No. 19, Hupmobile, Jos. Wiessenfeld, Baltimore; No. 20, Winton, George F. Whiting, Baltimore, Md.; No. 21, American Simplex, Simplex Motor Car Co., Mishawaka, Ind.; No. 22. Cameron, Cameron Car Co., Beverly, Mass.; No. 23, Atlas, Atlas Motor Car Co., Springfield, Mass.; No. 24, Crawford, C. E. Eckenrode, Baltimore, Md.; No. 25, Acme, N. S. H. Sanders, Boston, Mass.; No. 26, Reno. John J. Loughran, Philadelphia, Pa.; No. 27, Matheson, Matheson Automobile Co., New York City; No. 28, Renault, L. H. Shaab, Baltimore, Md.; No. 29, Hupmobile, Hupp Motor Car Co., Detroit, Mich.; No. 30, Marmon. Nordyke & Marmon, Indianapolis, Ind.; No. 31, Washington, Carter Motor Car Corporation, Washington, D. C.: No. 32, Washington, Carter Motor Car Corporation, Washington, D. C.; No. 33, Franklin, Franklin Automobile Co., New York, N. Y.; No. 34, Selden, T. S Patterson, Rosemont, Pa.; No. 35, Michigan, Michigan Motor Car Mfg. Co., Detroit, Mich.; No. 36, Elmore, Frank Hardart, Philadelphia, Pa.; No. 37. Pullman, H. Clay Waldman, Jr., Baltimore, Md.

Mayor to Start Transcontinental Relay Race

At 12:30 o'clock to-day, September 18, Mayor Reyburn of Philadelphia is scheduled to send off the first car in the transcontinental relay race engineered by the *Philadelphia Press*. It is planned to send cars in relays from the Philadelphia City Hall to the Alaska-Yukon-Pacific Exposition grounds in Seattle, Wash. The cars, thirty-two in number, will carry a message from President Taft to President Chilberg of the A-Y-P Exposition. and the event will be be known as the *Press* Transcontinental Automobile Relay Race.

It is expected that Seattle will be reached in twelve days, thus establishing a new transcontinental record. The event is the first of its kind ever held.

In carrying the President's message the cars will be required to travel a total distance of approximately 3,500 miles, crossing ten States and three ranges of mountans—the Alleghenies, the Rockies, and the Cascades.

The message will be carried across the continent by a representative of the newspaper promoting the race and at each of the thirty-two relay stations a different car, driver and mecanicien will be put into commission, allowing the bearer of the message to make the quickest possible trip to the far Western city.

Police authorities and automobile clubs have been asked to aid in giving the car the right of way, so that the maximum rate of speed may be kept up the entire journey.

Automobile manufacturers and dealers all over the country have donated cars for the race. Among those used on the trip are Acme, Maxwell, Autocar, Stearns, Ford, American, Haynes, Cadillac, Midland, Pope-Hartford, Regal-Detroit, Premier, Chalmers-Detroit, Buick, Velie, De Table, Oldsmobile, Reo, Buick, Auburn, Mitchell, Franklin,

Thomas Flyer, White Steamer and Studebaker E-M-F.

The car that will be sent away by Mayor Reyburn will be escorted from Philadelphia in an auspicious fashion, and the route which will be followed will be through the following cities:

Harrisburg, Altoona, Pittsburg, Pa.; Upper Sandusky, O.; Fort Wayne, Ind.; South Bend, Ind.; Chicago, Ill.; Dixon, Mount Vernon, Ia.; Marshalltown, Carroll, Omaha, Neb.; Columbus, Kearney, North Platte, Sidney, Cheyenne, Wyo.; Rawlings, Green River, Kemmerer, Soda Springs, Ida.; Blackfoot, Arco, Soldier, Boise City, Baker City, Ore.; La Grande, Pendleton, Walla Walla, Wash.; North Yakima, Easton to Seattle.

Roads to be in Apple-pie Order for This Race

PHILADELPHIA. September 14. ---Workmen employed by the city are busy getting the course in perfect shape for the Quaker City Motor Club's charity automobile race meet in Fairmount Park on October 9. The city authorities have shown a ready willingness to cooperate with the Contest Committee of the club and the committee of physicians representing the four charitable organizations which will benefit from the race, and the appointment of Chief Benson, of the Bureau of Highways, is regarded as an assurance that the roads will be put into such condition that they will be at the same time fast for the contesting cars and absolutely safe for the hundreds of thousands of spectators who are expected to attend.

The park roads are always kept in splendid condition, so that comparatively little treatment will be required to make them fit for racing. A little rolling, the patching of a few holes and the application of a top dressing of finely sifted gravel at the dangerous turns, sums up the requirements.

Phil Johnson, city architect, has drawn up plans for a grandstand which will accommodate 3,965 persons, and has also arranged for the marking off of one thousand parking spaces at points of vantage on the course. Two hundred and fifty of these parking spaces have already been purchased by the Norristown Automobile Club, the Automobile Club of Delaware County and the Quaker City Motor Club. It is estimated that the net proceeds will amount to \$20,000.

Two Chalmers-Detroit Bluebirds will be among the starters in the race, and Lorimer and Matson have been named as the drivers. This will bring the total of entries up to thirteen. No more than twenty will be allowed to compete.

The Massachusetts highway commission has refused to sanction the petition of the selectmen of Sharon for approval of their vote to exclude automobiles from thirteen of the streets of that town. The commission is willing that only three streets be closed.

Premier Owners Run to Cape May

It was "Premier Day" last Saturday in Philadelphia and on through New Jersey to the southern extremity of that State—the point which put out into the ocean and was a famous seashore resort in the ante-bellum days, long before Atlantic City had come into prominence. A run of Premier car owners had been arranged, and President Harold O. Smith, of the Premier Compnay, had come on from Indianapolis to lend eclat to the occasion. The start was set for 10 o'clock Saturday morning, September 11, and Broad Street presented an unusual sight as the hour grew near.

Besides flags and pennants, the attractiveness of the scene was greatly increased by the hosts of fashionably dressed women, who made up a large proportion of the occupants of the cars. They represented the wives of the owners of the machines, which, with the exception of five, used as official cars, were the property of private owners.

The cars, which were gathered from the principal cities of the East, left Philadelphia in a column of fours, promptly at 10 o'clock, but once outside the city limits, the run was commenced in true style, to equal the time of the pathfinder, which had covered the route three times.

The time made by the pathfinder was sealed and unknown to all, the contested point being to come as near this unknown time as possible, for which a large silver loving cup was offered by President Harold O. Smith, of the Premier company, and was won by B. E. Block, of Norristown. T. E. Gibberson, of Toms River, was awarded the Allen Sheldon trophy, an automobile lunch hamper filled with utensils; S. N. Root, of Lancaster, won the motor company trophy, a set of Thermos bottles and leather lunch hamper; while the Kuendig trophy, a silver Thermos bottle and four cups, was captured by Mrs. William J. Hendren, of Philadelphia, having guessed the nearest time of the winner.

Arrangements for the run had been progressing for the past two months and the entire route was resplendent with gaily colored posters, with the result that residents of the towns and villages to be passed through, were on the lookout, and a rousing reception was awarded the tourists everywhere.

At Camden, Mayor Ellis joined the



PREMIERS LINED UP ON T

gay party and proceeded with them to Cape May, where the automobilists were met by the mayor and a committee of citizens, who in a few words complimented the Premier Manufacturing Company on the unprecedented feat of leaving Philadelphia with fifty cars and arriving at their goal with the same number and every car in perfect condition, though slightly spattered with mud, and every member of the party in an enthusiastic and jolly frame of mind, not one incident having occurred to mar the pleasure.

Cape May had prepared a wonderful reception for their guests. A triumphal arch had been erected on Ocean Boulevard, and as each car passed through this a gun was fired, which was responded to by the tooting of every conceivable kind of horn, siren or other noise-making device.

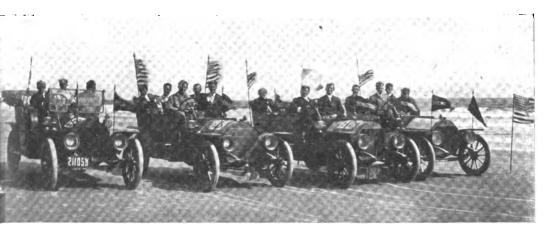
After the mayor, in front of the City Hall, had turned the keys of the city over to his distinguished visitors, all cars were parked in front of the Cape May Hotel, where elaborate preparations had been made for a dinner tendered by the Premier company, after which a complimentary concert and dance was tendered by the Cape May Motor Club.

The entire party remained over until Sunday as the guests of President Smith and enjoyed races on the magnificent beach in front of the hotel.

Solving the Vacation Problem

How two Ithaca, N. Y., motorists, R. L. Shipman and F. C. Edminster, solved the vacation problem is shown in this week's cover picture. A party was made up, consisting of three adults, six children, and the dog Flip, in addition to Messrs. Shipman and Edminster, and they started from Ithaca on Wednesday, September 1, and driving two Maxwell cars, they arrived at the Tarrytown factory of the Maxwell-Briscoe Motor Company on Sunday, September 4.

Carrying their camping equipment with them, the travelers were enabled to stop when and where they desired and to move on when they were ready to do so. According to these motoring vacationists the automobile tour has done a world of good, especially to the small members of the party, who returned home with the roses of health on their cheeks, while the grown-ups cherish the recollection of a glorious time spent on an inexpensive and withal profitable vacation.



MOUS CAPE MAY BEACH

A. M. C. M. A. Transacts Much Business

Approval of the decorative plans for the Tenth International Automobile Show, which opens New Year's Eve in Grand Central Palace, New York, was given by the Committee of Management of the American Motor Car Manufacturers' Association at the regular monthly meeting last week. The decorative scheme by which Unitt & Wickes, of New York, will transform the big building into a French trellis garden, was considered to be the best available design. It will be totally unlike anything that has been used in connection with motor car shows of the

The Show Committee, consisting of R. E. Olds, chairman; S. H. Mora, H. O. Smith, D. J. Post and Benjamin Briscoe, outlined the show plans, which this year are expected to make the affair even more successful than the one of last winter.

The report of S. H. Mora, chairman of the Membership Committee, showed that four new concerns had been admitted, bringing the membership up to 46. A number of applications have been received that will be passed upon at the next regular meeting.

Charles Lewis, president of the Jackson Automobile Company, was appointed the representative of the A. M. C. M. A., to attend the good roads convention of the American Automobile Association at Cleveland.

The plan of the American exposition at Berlin was submitted, and was placed in charge of the Show Committee. The Germans are arranging for an exhibit of American goods at Berlin next May, June and July, and have set aside 10,000 square feet of space for American automobiles.

At the meeting were: H. O. Smith, Premier Motor Mfg. Company, chairman; C. G. Stoddard, Dayton Motor Car Company, vice-chairman; S. H. Mora, Mora Motor Car Company, treasurer; James W. Gilson, Mitchell Motor Car Company, secretary pro tem; W. H. Van Der Voort, Moline Automobile Company, auditor; Benj. Briscoe, Maxwell-Briscoe Motor Company; R. E. Olds, Reo Motor Car Company; Charles Lewis, Jackson Automobile Company; W. C. Marmon, Nordyke & Marmon Company; D. J. Post, Veeder Mfg. Company, and Alfred Reeves, general manager.

Promoters of New York-Atlanta Run Apply for Sanction

Chairman Frank B. Hower, of the Contest Board of the American Automobile Association, visited New York on Wednesday, September 15, for the purpose of looking over the rules adopted for the *Herald-Atlanta Journal* Good Roads tour, which will leave New York on the morning of October 25 and end in Atlanta, Ga., on November 3. After reading the rules Mr. Hower declared they complied with the requirements of the A. A. A., and thereupon application for a sanction from the national body was made by the promoters of the event.

The tour is to be held primarily to

further the highway improvement movement and to christen the national highway between New York and Atlanta, which has been selected by these newspapers, and prizes aggregating in value at least \$1,700 will be awarded to the winners of the various classes. A tropry will also be awarded to the private owner having the fewest points to his debt, provided that owner shall not have won a class trophy.

The contesting cars will be divided into six classes, according to their selling price, and the time allowance of cars shall be in proportion to their class. Tire repairs and replacements can be made without penalization, and the engine may be stopped while such repairs or replacements are being made. Before start of the tour a committee shall stamp, seal frames and engine casings, and any car in which these parts are re-

places shall be disqualified. All cars start with a clean score.

Penalties shall be imposed as follows: After an allowance of two minutes each late arrival at controls shall be penalized one point for each minute or part thereof.

To Lay Brick Pavement on Speedway

Following the announcement that the Indianapolis Motor Speedway would be made safe at any cost, comes the announcement that the officers have met and subscribed \$100,000 for the purchase of vitrified brick to pave the track, and \$40,000 for an additional sub-base. The track will be refinished in brick in sixty days.

The speedway people have laid a section of brick pavement at the speedway, made careful tests, and are satisfied that with an addition to the solid pavement, which will be smooth without bumps of any kind, it will be considerably better

than any other form of pavement that could be adopted.

Auto Fire Apparatus for Wilmington

WILMINGTON, Del., Sept. 9.—Two Wilmington fire companies are considering the advisability of purchasing automobile combination chemical and steam fire engines. They are so much interested that a few days ago they sent representatives to Trenton, N. J., where such an engine was given a test, the result of which was pleasing to the local men, and they have reported favorably to their companies.

Road Mates

By Hugo von Hauck

As many whims as in an April day
I find within this racing car of mine;
She leads me in her own most fitful way,
And of relenting gives me ne'er a sign.

Let's say that I would fain a record break—

A trophy win! One little silver dish; Old car of mine. I know that you will take Your own sweet time, regardless of my wish

What boots it that I fret and fume with you?

For there are times when you respond to me;

I must, indeed, give you the fullest due; When you are kind, no better car may be.

My hand that guides your vital parts must thrill

To feel your human leap beneath its weight;

I know, my car, that we are kinsmen still; For many miles you'll be my running mate.

Making a Business Trip of 5,000 Miles

River floods in southern Indiana are no laughing matter, as was learned by F. M. Hoblitt, who has earned the title of the pioneer motor car salesman, and who recently completed a remarkable business trip of about 5,000 miles, undertaken in the interests of the American Locomotive Company. He started from New York for the Alco factory at Providence, drove to Boston, then to Albany and Buffalo, Cleveland, Chicago, Minneapolis, St. Louis, and all through the Middle West. He said he encountered only a few bad roads, the



A SIGN THAT TELLS ITS OWN STORY

worst being in southern Indiana, where rains had caused the Muscatatuck River to rise so that the road was flooded in places. "Most of the time I found good roads and 25 per cent. of them were splendid, although I had a car which makes the worst roads seem fair," he says. "The country seemed prosperous everywhere, and I could see nothing but the best of prospects in a business way.

"I suppose it is known here now, for it is some time since I went over it, but all tourists should be told that the new State road between Albany and Buffalo, which has been so much avoided, is now practically finished all the way. We had many very odd experiences, beside being held up by a horsefly that got



PUZZLE-FIND THE ROAD

into the carburetter. On the Rocky Ridge Road, in Kentucky, we met a buggy containing two women who evidently expected their horse to bolt, for as soon as they saw our car they both

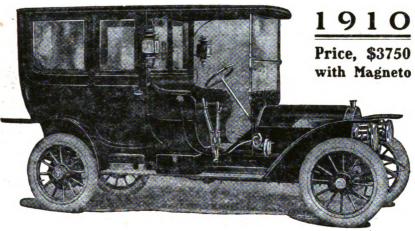


WHEN THE RIVER OVERFLOWED ITS BANKS

leaped from the carriage and ran into the brush. The horse proceeded to calmly crop the grass and we drove on, laughing in a way that must have seemed unkind to those dear old ladies."

Automobile Topics Tour

Stevens-Duryea Model X Limousine



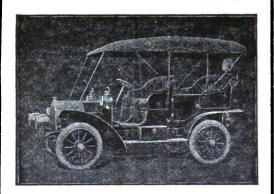
A Seven-Passenger Car Superbly Designed for Comfort. Luxuriously Upholstered and Magnificently Finished.

STEVENS-DURYEA CO., Chicopee Falls, Mass.

Members Association Licensed Automobile Manufacturers

Springfield Metal Body Co.

SPRINGFIELD, MASS.



ALUMINUM LIMOUSINE AND LANDAULET BODIES

We are ready to contract for touring and runabout bodies



Simplicity Strength

for MAGNETO or BATTERY

Buy a

FRY 1

We want you to see the best built PLUG at the best price and know why

Send this Coupon and 25 cts. for Sample. State Thread and Name of Supply House and Make of Car.

One plug only to each person. Duplicates not excepted.

Standard :

Sales Co.

1783 Broadway, N. Y.

Loose Sheets of This and Previous Sections May be Obtained by Remitting Ten Cents for Each

NEW YORK TO BOSTON

Fitst Section---New York to Hartford

One of the earliest touring routes published by Automobile Topics was that from New York to Boston. One of the sections is out print and the entire route has therefore been revised and brought up to date. The first section, New York to Hartford, is here given.

From Columbus Circle go up west drive of Central Park, coming out at 110th Street and Seventh avenue. Straight up Seventh Avenue to

Central Bridge (5.3 miles).

After crossing bridge straight up Jerome Avenue to intersection of Fordham Road. Turn right into Fordham Road and then left at fork just beyond. Cross Webster Avenue, entering Bronx Park. At end of Pelham Parkway turn left on Shore Road. Straight ahead to Centre Avenue, New Rochelle. Ahead on macadam to Echo Avenue, where turn left. Turn right into Main Street through Larchmont into Mamaroneck (21.2 miles).

Leaving trolleys at left, go up grade, avoiding left fork. At 23.7 miles bear right over stone bridge, curving left immediately beyond. At fork at flagpole, Rye, take right; straight ahead on main road. Cross bridge and one mile beyond bear right. Turn left with car tracks into Portchester, N. Y. (26.6 miles).

Keep to right on N. Main Street. Bear right over stone bridge. Straight ahead through four corners just beyond. Straight ahead up long grade entering

Greenwich, Conn. (29.6 miles).

Straight a short distance, then right down hill. Turn left with car tracks to five corners, where turn right into

Stamford (34.8 miles).

Straight ahead to small park where take left. Direct over Noroton River, and through Noroton village. After passing hospital turn right and a short distance beyond take left into

Norwalk (43.5 miles).

Turn right across bridge over Norwalk River and after passing fountain curve left with car tracks. Turn right up grade into Westport Avenue. Follow trolley tracks in center of

Bridgeport (57.2 miles.)

Continue on Fairfield Avenue. At fork beyond iron bridge turn left and about three miles beyond turn left again into Stratford (60.9 miles).

Turn right with trolleys. Where the

car tracks leave, run straight ahead on main road, meeting trolleys about two miles beyond. Follow same into Milford (65.3 miles).

At farther end of Green curve left with trolleys. Follow same until they bear right. Bear left straight ahead meeting trolleys at four corners. Follow tracks and at fork just beyond take extreme left to end of street where bear left and at the

end of one block turn right and first left into City Green,

New Haven (745 miles).

Skirt Green by College Street. Up Temple Street into Whitney Avenue. Follow trolley to head of Lawrence Street, turn right on Lawrence Street to end of same, turning left with car tracks across Mill River. Bear left on State Street and continue northerly. At triangle turn right across Quinnipiac River. Straight ahead to four corners at

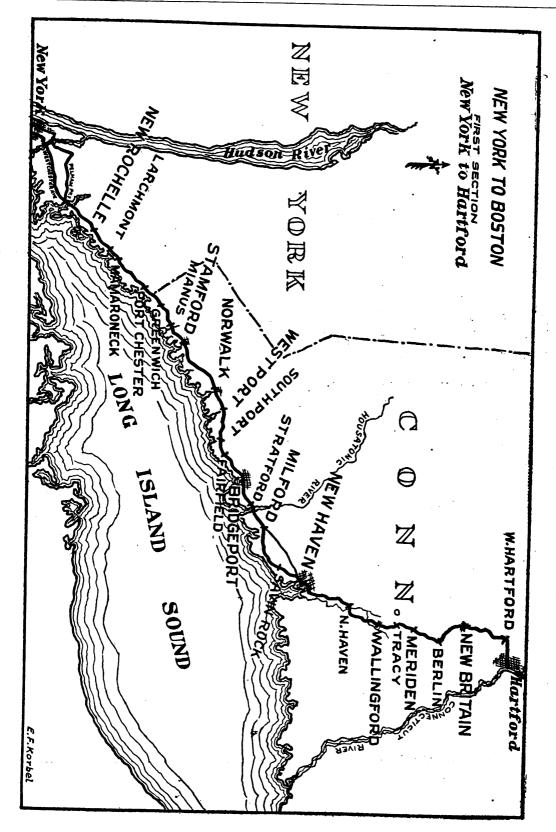
North Haven (83.1 miles).

Turn left. Follow trolleys until they leave to left. On main road into Wallingford. Straight ahead through town. Left turn under R. R., and immediately sharp right into Tracy. Where trolleys go left continue straight ahead to fork; keep left then straight into Cook Avenue. Continue on Cook Avenue, turning right into Hanover Street. Turn left on S. Grove Street, one block to W. Main Street; turn right on W. Main Street to center of Meriden (94.7 miles).

Turn left up Colony Street to fork, at upper edge of town. Bear right over R. R. tracks and at fork keep left. At sign "New Britain 6 Miles," turn right direct through Berlin Centre. At further end of town turn left with trolleys. Beyond R.R. station turn right and run direct into New Britain (105 miles).

Bear right on Elm Street and go straight for about one mile, where meet trolley line. Follow same to end of line; thence on macadam to left hand road. Turn left, then straight ahead two miles. Meeting cars, follow same straight into Hartford (116.5 miles).

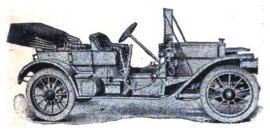
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The Envied Car

Every motor car lover likes to think that some day he'll own a Stearns.

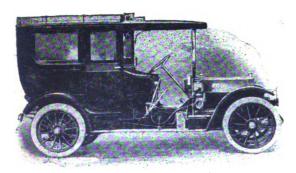
Yet thousands of men pay for lesser cars more than the Stearns would cost.



A Most Popular Model—Toy Tonneau Style With either 15-30 H.P. or 30-60 H.P. Chassis

They buy cars that are old in one season. Then buy another the next. They are paying the price of the Stearns---and more---without having the car they want.

The Stearns grows better, with proper care, up to 15,000 miles. Its second year is better than its



The 30-60 H. P. Chassis with Limousine Body

first. Our races are won by cars which have seen at least two seasons active use.

Nobody knows how long a Stearns will last, for no Stearns has ever worn out.

The Stearns, of course, is a stunning car; but that isn't the reason why some cars cost less.

Nine-tenths of the cost is in parts you don't see. Every part of the mechanism is as costly as we can make it.

That's why the car endures. That's why it is safe. That's the source of its wonderful power.



The car as now made is perfection. We have spent 13 years in making it better, and there's little room to go further.

You can wisely buy a Stearns to keep. For there will never be, in all probability, any radically better car.

Please write for our latest catalog.

A Reminder

THE F. B. STEARNS CO., Cleveland. Ohio Please send me Catalog No. 18.

"The White Line Radiator belongs to the Stearns"

Cleveland Man Invents a Balloon Gun

A balloon gun has been designed and constructed by a Cleveland. O., man—Dr. S. W. McLean. The accompanying illustration shows the gun mounted on an electric truck and ready for use.

Dr. McLean claims that his gun will provide complete defense for cities in warfare of the future, when aero craît will hover over cities bent on their destruction. His gun is a means of defense the importance of which can scarecly be overestimtaed, he says.

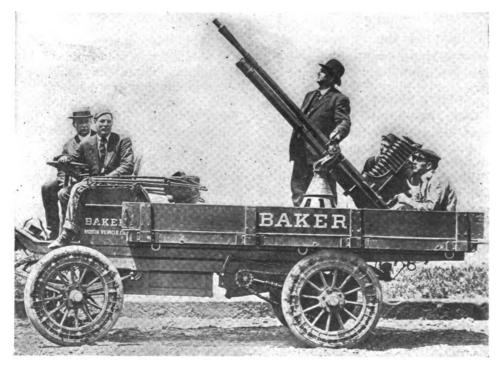
"My gun can puncture an airship a mile and a half high and a mile distant in any direction," says Dr. McLean. "If the fellow in the air ventures inside that range, pop will go the gun and—well—something is bound to fall.

"Conditions balance. The conquest of the air is certain. There isn't the least bit of doubt but that dirigibles and heaver-than-air machines will be a part of the offensive warfare of the future. But means of defense are just as inevitable. Witness, my gun.

"Dirigibles will be very dangerous. One of these can carry as much as twenty-five tons of expolsves. You can imagine what would be the result if one should succeed in flying over a city and heaving its deadly cargo overboard.

"But there will always be a problem to solve—how to get past the fleet of armor-plated automobiles, manned with guns, that will guard the object of attack. It will be impossible in daylight. At night there will be searchlights to dodge.

"Of course, the soldier of the future is bound to run the risk involved in making an attack by air; but he will take a chance—a terrible chance.



DR. MC LEAN (STANDING) AND HIS MACHINE GUN

"Devising a gun that will do damage to air craft has been hard for one reason—no shell yet perfected will explode under less resistance than that offered by a one-inch pine board. A shell that will strike the gas bag of a dirigible, or the cloth-covered plane of a flyng machine, will tear a hole in either, but will not explode and cannot cause instantaneous destruction.

"But a few shots from a gun firing 200 missles a minute, such as mine, would disable the craft sufficiently to bring it to earth. That would be sufficient. To render it unfit for flight would be to destroy its usefulness entirely.

"There won't be the horrible loss of

life in such an encounter that most people imagine, however. The airboats of the future will be so contrived that they will float safely to earth when disabled. Mortality will be comparatively small.

"Our tests, shooting at an object of the size and general conformation of the Wright aeroplane, showed that we could hit 86 out of 100 times. This shows conclusively that the aeroplane, which can't rise far from earth will be an easy target. The dirigible, because of its size, will not be hard to hit.

"I guess the 'bird men' will never have everything their own way."

Dr. McLean made tests at Cleveland with his gun mounted on a Baker electric truck.

Grade Crossings Still a Peril to Motorists

One of the greatest perils of the motorist is the enormous number of grade crossings which still exist. In New York State alone, according to General John T. Cutting, there are 10,544 of these crossings.

It is true that there are not many railroad grade crossings in New York City, if we except the trolley car tracks, but there are a number of them on Long Island, although the Long Island Railroad has spent over \$6,500,000 in removing grade crossings in Brooklyn, and their latest improvement is in the Flatbush district on their Manhattan Beach branch, where fourteen grade crossings will be eliminated, he says. Queens Borough, the popular touring ground for motorists, and especially so since the opening of the Queensboro Bridge, which leads almost directly into Automobile Row, has still over 200 These the railroad grade crossings. has prepared plans to remove at a cost of about \$6,000,000, but unfortunately the last Legislature failed to pass the bill authorizing the city to pay half the cost, and it is to be noted that this is the

first time in many years that the Legislature failed in its rutty to make an appropriation for the removal of grade crossings.

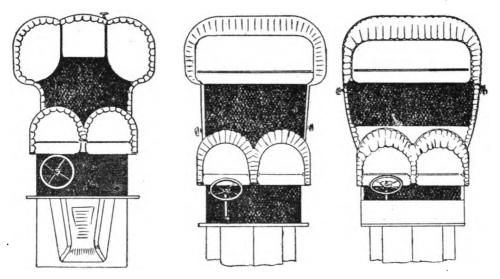
There are in New York State 10,544 places at which railroad tracks cross the public highway, and at 1,698 of these places crossings have been removed. The protected crossing now number 3,687, of which the Long Island Railroad has 51 per cent., New York Central 45 per cent., Delaware, Lackawanna and Western, 43 per cent. Erie 31 per cent., Delaware and Hudson, 30 per cent., New York, Ontario and Western 30 per cent., Lehigh Valley 20 per cent.

New York has abolished toll roads, and in New York City all our highways are free, excepting the bridges that cross the East River. Some day we may expect to see them free, and when the city operates all the ferries, why, they should be free, too, as part of the municipal highway system. Both New York State and New York have practically abolished toll roads, although Pennsylvania has 17,018 miles of tool roads, through twenty-one counties.

Narrow-Waisted Bodies

One of the reasons for the decline in popularity of the old-fashioned tonneau body wat the discomfort caused by its peculiar construction. These bodies were what has been termed "narrowentrance, is shown plainly in the lefthand illustration.

The middle drawing shows the type which is still made. It is not so narrow in the waist as the old tonneau, but it



waisted," and the occupants of the two outside seats had to twist themselves round at an angle, and all three people on the back seat were compelled to concentrate their feet in the middle of the

This type, which had the rear-door

suddenly narrows down immediately in front of the back seat. A glance at the right-hand illustration will show the much greater comfort which is obtained with a properly tapered body, although the extreme width of the car is increased in no way.

Five-Day Endurance Run for Texans

Houston, Tex., is to have a five-day endurance run, which will start September 24. The run will be conducted by the *Houston Post* and will be held under the rules of the American Automobile Association.

The route, which is a sort of a circular affair, commences and ends at Houston, with a Sunday stop being made in San Antonio. The itinerary of the contest is as follows: Houston to Victoria, 123 miles; Victoria to San Antonio, 130 miles; San Antonio to

Austin, 80 miles; Austin to Brenham, 80 miles, and Brenham to Houston, 86 miles, a day being allowed for the trip between each of the cities.

The roads over which the run will be made are varied. Good graded dirt roads will be the most frequent, though there will be a number of shell, macadam and gravel stretches throughout the route.

A handsome cup has been donated as a trophy for the car making the best showing.

Great Diversity of Design in Aeroplane Engines

During the aviation week at Rheims much attention was directed to the engines fitted to aeroplanes, and many surmises were made as to the type which will eventually prove the most suitable for aeroplane work. In examining the machines in the sheds, an extraordinary diversity in design was noticeable.

First of all there was the 20 hp. three-cylinder Anzani air-cooled motor of the Bleriot aero. This motor has one cylinder vertical and the other two set one on each side of it at an angle, the centre lines of all the three being in the same plane. In addition to the usual poppet valves, the cylinders of the Anzani are drilled with holes near to the end of the piston stroke. Thus the exhaust is freed quickly, and the exhaust valve relieved of the major portion of its work, so that there is less chance of overheating, burning and pitting.

Another air-cooled engine was that fitted to the Voisin biplane piloted by Bunau-Varilla. This engine has seven cylinders equally spaced round the crank, the peculiar feature being that the crankshaft chamber proper and the cylinders rotate about the crankshaft. At first sight it would appear that considerable trouble might be experienced in balancing such an engine, and also that there would be difficulty in preventing the lubricating oil from throwoutwards on to the sparking plugs, and the valves lifting off their seats by centrifugal action. However, very long flights were made by a Voison aeroplane fitted with a seven-cylinder 50 hp. engine on these lines, and no trouble was experienced.

The Antoinette engine fitted to the Antoinette aeroplanes, which have been so prominently brought before the public by the performances of Mr. Latham, is of the eight-cylinder V type,

and is given as 50 hp. The engine is of exceptionally light construction, and probably some of Mr. Latham's trouble has been due to the weight-reducing efforts of the designer. At Rheims Mr. Latham demonstrated that his machine is a real flyer, and the Channel passage is a mere nothing for the Antoinette aeroplane to accomplish.

A peculiar feature is that many of the engines are only fitted with one ignition system. It would be far safer for the pilot, and certainly tend to make a more reliable flyer, if two systems were fitted; either two separately wired magnetos could be employed, or a magneto in conjunction with an accumulator and coil system.

The Vivinus engine fitted to the Sommer biplane was stated to be of 60 hp., and has four vertical cylinders. This engine bears more resemblance to a motor car engine than any other—although the Wright engine is fairly substantial—and apparently has not been cut down in weight.

One of the best looking engines of the lot was fitted on the Curtiss biplane. This is of the eight-cylinder type. The axis of each pair of inclined cylinders does not coincide, but appears to be about an inch out of line. Thus it is possible to get a connecting rod with a separate bearing on the crank pin, instead of having a forked end to the connecting rod. The cylinders are made separately, and are fitted with a thin metal water-jacket casing. valves are inclined in the head of the combustion chamber, the exhaust being the outer and the inlet the A single tappet rod attached to a double-ended lever actuates the valves. A push on the tappet so moves the lever that it depresses the exhaust valve stem, while a pull depresses the inlet. Thus only one cam-shaft is required, and one tappet rod serves to actuate two valves. Some of the engines on the Fiat racing cars are provided with similar valve gear.

The engine is water-cooled in conjunction with a honeycombed radiator and centrifugal water circulating pump, but no fan is used. A Bosch high-tension magneto fires all the eight cylinders. The engine is stated to be of 35 hp., and probably its bore is about 3½ inches. Judging by the speed the Curtiss biplane can attain, either the engine is much above the stated power or the planes and screw are exceptionally efficient, for there is no doubt that the Cur-

tiss flyer is one of the fastest in the world.

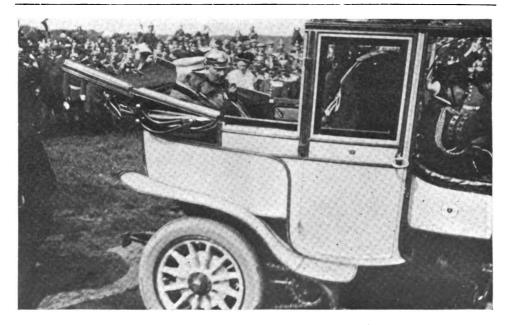
A soundly designed engine which will stand up to its work is beginning to be recognized as of more importance than mere weight-cutting, though it is evident that some of the designers of flying motors have not fully grasped this. Nothing has been made plainer by Rheims, as nearly all the failures were due to engine defects, and comparatively few difficulties were experienced with the planes themselves. Of course, weight cannot be ignored, but it is useless to secure lightness by sacrificing reliability.

Special Badges for Indianapolis Chauffeurs

The city comptroller of Indianapolis, Ind., has been receiving a number of applications for the new professional automobile drivers' license badges. During the last week more than 782 applications were made, while only 200 of the 3,000 badges ordered were availa-

ble. The badges are of German silver and of oval shape.

They bear a picture of a touring car, above which are the words "Licensed Driver." On the car, in black enameled figures, appears the number of the badge.



GERMAN EMPEROR AND COUNT ZEPPELIN, AFTER THE LATTER'S SUCCESSFUL FLIGHT

Mitchell Ranger Nears Pacific Coast

Ogden, Utah, was reached Sunday night by the military trio, carrying dispatches from Major General Leonard A. Wood, U. S. A., New York, to Major General John F. Weston, U. S. A., San Francisco, in the Mitchell Ranger, after experiencing road conditions which would be considered impossible in any civilized country and which forced the party to secure permission from the Union Pacific authorities to use their bridges, the others having been swept away by washouts and swollen rivers.

Private Malcolm E. Parrott, Tenth Regiment, New York National Guard, in charge of the dispatches; Lieutenant B. B. Rosenthal, Spanish-American War veteran, and Driver Frank X. Zirbies, who have condensed more novel experiences in that portion of their trip lying between Western Iowa and Ogden, Utah, than even the New York-Paris racers encountered, retain their good cheer, look forward to an interesting test for the car and crew in rounding the Great Salt Lake turn.

From the latter place to Truckee and Colfax, thence by a speedy schedule through Sacramento and Oakland, and the terminus of the first across-the-country war dispatch automobile expedition ever attempted—the Presidio at San Francisco.

Drove From Pittsburg to Seattle in 29 Days

Mr. and Mrs. W. G. Selby, of Marietta, O., have arrived at Seattle in their Winton Six, having taken twenty-nine days for their overland journey from Pittsburg to the exposition city. On the

trip Mr. Selby cleaned one spark plug; otherwise the motor never gave him a moment's thought. From Seattle, Mr. and Mrs. Selby will tour to Los Angeles and thence home via Salt Lake City.



THE TOURIST AND HIS WELL-STOCKED CAR

PREVENTIVES AND REMEDIES

However carefully nuts are tightened a stud may occasionally be broken off short in a casting or some other part of a motor car. It is usually a difficult matter to remove the broken piece, so that a new stud may be inserted. The best way to go about the removal of the broken portion is to drill a hole in the center of the part broken in. This hole should be of a certain size, depending on the diameter of the stud. For a 36 in. stud a bare 1/4 in. diameter hole should be drilled, care being taken to drill right down the center of the stud so as not to damage the thread. A flat-nosed drill should be used, and should be ground so that it only cuts when rotated in the left-hand direction, and not in the right, as the usual drill is ground. The reason for this is that if the stud thread be at all slack rotation of the drill and the cutting action will tend to screw out the stud, which will very often come out readily before the hole is drilled very far. If the stud does not come out as described, then, after the hole is drilled through it, a square reamer is lightly driven into the hole. A lathe carrier is fixed to the top of the reamer and the stud twisted out by rotating the carrier anti-clockwise. If the drilled part is very fast and then will not readily come out, the only thing to do is to chip the broken part with a sharp roundnosed chisel. This usually has the effect of cracking the skeleton of the stud, and the pieces can be fished out of the hole with a piece of bent wire.

There is a right and a wrong way to tighten battery and coil terminal wires. The right way is to twist the bare part of the wire or cable round the terminal in a clockwise direction and then tighten up the terminal nut. The reason for this is that, as the nuts have right-hand threads, the fact of tightening up the nut tends to pull the wire round more tightly. If the wire be twisted round in an anti-clockwise direction, tightening up the nut tends to uncoil the wire, and it will slip from under the nut while it is being tightened or when the vibration of road work comes into play.

Perhaps the most common part of the radiator to suffer damage is the filler. Projecting as it does above the level of the

casing, it is in consequence subject to receive chance blows. A large bucket of water can easily weigh thirty pounds. and, to suddenly plank this down on a filler, which is merely supported by a strip of thin sheet brass, is not conducive to its maintaining its original position. To the tired muscles of a motorist the bucket becomes rapidly heavier as he carries it from the tap or the pump, so the drunken appearance of many fillers is not to be wondered at. An easy method of restoring them to their original position is to cut a hole in a short plank of wood which will just fit over the filler, but which will not pass over the cap. By first placing the plank over the filler, and then screwing on the cap, we can use the plank as a lever to pull the filler back to an appearance of respectability.

Rims should be kept free from rust, to facilitate the removal of the covers when tire trouble occurs. Tire experts agree that powdered graphite and glycerine make the best preparation to apply to wheel rims for the prevention of rust. This is compounded by taking a small quantity of powdered graphite and mixing it with glycerine until it becomes a thick paste, then it can be applied with a brush. Graphite and linseed oil paint is another preparation for this purpose.

It is a good plan to thoroughly clean out the float chamber of the carburetter at least once in the course of a season. If this is done, and any sediment cleaned from the union which connects the gasolene pipe with the chamber, many an annoying stoppage or sluggishness of the motor will be prevented.

Pre-ignition is often m staken for over-heating. If the engine continues to run spasmodically after the ignition is switched off, it is a case of pre-ignition, which can be stopped by closing the throttle. Pre-ignition is mainly caused by a particle of matter in the cylinder, such as carbon or soot, which becomes incandescent during the power stroke and ignites the fresh charge of gas when it is compressed.

C L U B S

Plans are being made by the Portland (Ore.) Automobile Club for the building of a highway from Portland to Mount Hood. It is estimated that the highway can be built from Portland to the Dallas and thence along the side of the Columbia River to the foothills of the famous mountain at an expenditure of \$100,000. most difficult portion of the proposed project lies in a mountain canyon 500 feet in depth opposite Collins Hot Srings. The distance to be overcome and over which the highway will have to be built through the canyon is nearly four miles. the cost of construction is apparently excessive, yet the estimate, it is believed, can be greatly diminished as to the cost should the project meet with the approval of the officials higher up. Convict labor could be employed with a great degree of safety owing to topography of the vicinity. According to the scheme worked out by President Wemme and officials of the club the county could temporarily advance the funds required to defray the expenses of the construction work. The bill for the project will be presented to the Legislature and, if passed, the county would ne reimbursed for its temporary outlay. The benefits to be derived from such an accomplishment, according to the version of those interested, would be great, not only from a commercial standpoint to the districts through which the highway would extend, but would permit of adequate passage to the present bottled-up district in that portion of the State.

Plans are being made for the formation of a federation of clubs in Georgia.

The Sea Isle City Motor Club has been organized in Cape May, N. J., with the following officers: President, Chas. Woertz; vice-president, Bismark Kiessewetter; secretary and treasurer, Walter Brooks. Board of Governors: Messrs. Dr. Stimus, Gray, Whittington, Fred Cronecker, Bell, Vaill, J. P. Delaney, Farschon and Ehrlich

The following warning notice has been issued by the Bureau of Tours of the Automobile Club of America: "Special attention is called to Section 14 of the new Massachusetts automobile law, which provides

that 'upon approaching a pedestrian who is upon the traveled part of any way and not upon the sidewalk and upon approaching an intersecting way or curve or corner in a way where the operator's view is obstructed every person operating a motor vehicle shall slow down and give a timely signal with his bell, horn or other device for signalling.' Many arrests are being made for violations of the above provisions."

The Gloversville (N. Y.) Automobile Club held a meeting recently at which it was decided that the organization would affiliate with the New York State Automobile Association. It was also decided that the club would have signs placed along the roads in the vicinity of Gloversville, as guides for the tourists. The following governors were elected: Harry J. Louis, Howard A. Keiner, and W. Donald Hyde. With the officers of the club the governors will constitute the Board of Govern-The officers, which were elected at a previous meeting are William B. Collins, president; George W. Mandrill, vice-president; E. J. Wilkins, secretary, and Jay G. French, treasurer.

The Fremont County Automobile Association is a recent organization of St. Anthony, Ida., the officers of the association being G. E. Bowerman, chairman; R. J. Comstock, secretary; George E. Hill, Ornson Waldrum, L. S. Borrows, W. D. Parker and George Swartz, directors; H. Flamm, John H. Bleveins and Dr. J. P. Clark, committe on by-laws. The association was organized primarily to secure the benefits to be derived in purchasing supplies, improved roads, etc. Fremont County now boasts of upwards of thirty machines.

The citizens of Corvalis, Ore., nave organized the Corvalis Automobile Club with twenty charter members.

The York Automobile Club, of York, Neb., has secured an injunction against the Board of County Commissioners of York County to restrain them from distributing the inheritance tax, which in Nebraska is used solely for road improvement, among the other towns of the State. The motorists claim that the road districts leading out from York should receive the bulk of the money.

AUTOMOBILE SPORTS

Although the event is a month distant, the General Race Committee of the Automobile Club of California is making preparations for the road race which their organization is going to conduct over the San Leandro course, on October 23, with \$10,000 worth of prizes offered. At a recent meeting another event was added to the program. The added event will be a free-for-all race over a distance of 250 miles, which will be known as the Portola road race. The other events to be run are a 200-mile race for stock cars with a piston displacement under 300 cubic inches and a 150-mile race for stock cars with a piston displacement of over 301 cubic inches. It is planned to run these races as a sweepstakes, similar to the race run on the first day of the Lowell, Mass., carnival, last week.

The representatives of the Kansas City, Mo., Motor Car Dealers' Association, the Automobile Club and the Priests of Pallas are enthusiastic over the motor car flower parade which has been arranged for Thursday, October 7, during the Priests of Pallas week. The parade will be open not only to automobile owners of Kansas City, but to every owner in the Southwest. One of the Automobile club representatives estimated that as many as 500 cars would be in line. A number of attractive prizes will be offered for the best decorated cars.

Dallas. Tex., motorists are looking forward with a great deal of interest to three days of automobile racing, which are scheduled to take place in that city October 28, 29 and 30. The races are being promoted by the Dallas Automobile Dealers' Club, and they will be run on the mile track at the State Fair Grounds. Following is the program. First day. October 28-First, five mile, open State championship (driven by owner or chauffeur). Second, five mile stock car race; five (stripped) cars listing \$1.250 and under. Third, motorcycle race, five-mile, open. Fourth, ten-mile stock car, class 4, listing from \$1,250 to \$2,000. Fifth, two-mile novelty race, cup. Sixth, ten-mile freefor-all, stock chassis. Seventh, motorcycle race, ten-mile, open. Eighth, five-mile free for all. Ninth, fifty-mile race, freefor all, stock chassis (State). Second Day. October 29-First, ten-mile State championship, open to owners only, driven by owner or chauffeur; cup. Second, one-mile open for electrics. Third, five-mile twocylinder stock cars, listing from \$850 or \$851, \$1,250 or \$1,251 to \$2,000 and under. Fourth, ten-mile free-for-all stock chassis. Fifth, five-mile lap race for motorcycles. Sixth, fifteen-mile free-for-all. Seventh, one mile open, to break track record, flying start, to drive three miles. Eighth, motorcycle race, ten-mile handicap, stock chassis, classification and weight clause (to be handicapped according to piston displacement). Ninth, one-hour record race, freefor all stock chassis. Third Day, October 30—First, five-mile city championship, open to private cars, owner or chauffeur to drive, owned in Dallas or Forth Worth; cup. Second, ten-mile free-for-all. Third, motorcycle races, five-mile open. Fourth. fifteen-mile race, free-for-all, stock chassis. Fifth, one-mile State amateur record, private owners only, owners to drive, flying start; drive three miles; fastest mile to count. Sixth, motorcycle race, mile against time to establish State record; flying start; drive two miles; fastest mile to count. Seventh, five-mile consolation, open to drivers who have not won during the invitation event; handicap.

The Parkersburg (W. Va.) Automobile Club conducted a track race meet on September II, and some good sport was the result. W. T. Carter, president of the club was the hero of the day, taking first prize in most of the ten events, which constituted the program.

The Salon Automobile Club of Provence. France, recently conducted its annual speed trials, the principal feature being the performance of Bablot in a Brasier car. with which he secured permanent possession of the Rothschild Cup. His time for the flying kilometer was 21 I-5 seconds. and for the five kilometers, I minute 45 4-5 seconds, the latter representing an average speed of 71.5 kilometers an hour.

The Automobile Club of New Haven is planning to hold a paper chase or a gymkhana some time this fall.

HIGHWAYS

In order to supply an easy and pleasant mode of climbing Mr. Shasta, Cal., a number of citizens of Sisson have organized a company under the name of the Mount Shasta Automobile Ascension Company, which will endeavor to make the ascent of the mountain the greatest feature. The officers of the company are J. M. Schuler, president; W. B. Hunt, vice-president, and Henry McGuinness, secretary and treasurer. The company has begun work on an automobile road from Sisson to beautiful Wagon Camp, on the lands of the company, and the site of the new summer town to be called Shasta Heights, which will be built just below numerous springs that bubble out of the side of the great mountain. From Shasta Heights the road will continue to Horse Camp, so named because it is the highest point attainable on horseback, with any degree of pleasure; and from there on the trial will be put into such condition as to make the ascent a pleasure compared with the tedious journey which occupies part of three days, and which the company will make in one day when its plans are matured. The road will be a toll road, and a moderate fee will be charged those using The grade is moderate and twenty miles an hour can easily be made with a good car. The distance from Sisson to the snow line over the company's road is about fifteen miles.

The Automobile Club of Philadelphia is out in earnest after good roads this fall. The Trappe turnpike on the Philadelphia-New York route is being repaired, and the work is expected to be finished in a few weeks. This has been the only bad stretch of road between Philadelphia and New York, and the club has been endeavoring to have it fixed up. The club furnished a King split-log road drag to the turnpike company, and it is using it to advantage on bad places in its pike. The turnpike company has placed cinders on the road and is plowing out the ditches and will put fine stone on top and roll it. This should make an excellent road, thus avoiding the bad stretch of dirt road between the Hulmeville Road and Oxford Valley on the other route by way of Hulmeville and Torresdale on the Bristol Pike. The chairman of the good roads committee and the

engineer of the club made a trip from Newtown, Pa., to Doylestown on the pike via Wrightstown and Pineville, and found the road in fair condition, except for the great number of water breaks, but they expect to have the turnpike company work with them in fixing these bad features. The Bethlehem Pike, well known to motorists, is being repaired from Fort Washington to Chestnut Hill. Above Fort Washington there are many bad places, and the club is trying to work in conjunction with the turnpike company and road supervisors in having these places repaired.

In connection with its good roads work the Denver (Col.) Automobile Club has started a crusade against the permitting of irrigation ditches to overflow, which is causing much damage to the roads in many parts of the State. At a meeting of the Board of Governors recently an appropriation was made to the sign board committee for the purpose of enabling them to continue the work of posting the roads throughout the State. Before the first of the year it is expected that all the principal roads in the State will be marked.

State Highway Commissioner James H. MacDonald, of Connecticut, is keeping close watch on the roads of the State. He is having men watch certain sections of recently constructed macadam for the purpose of detecting breaks in the surface, it being the duty of those employed to make repairs as soon as they occur. In this manner the highways will be kept in a satisfactory condition at all times.

The work of paving Frelinghuysen Avenue, between Newark and Elizabeth, is progressing rapidly, and should be finished in a short time. This will make the old route to Elizabeth popular with motorists once more.

Union County, N. J., contractors last week began to repair the crosswalks in Westfield avenue, Roselle, where they have been badly worn down. Large holes have been made at the crosswalks, causing traffic to become dangerous.

Oregon motorists are talking of constructing a road from Portland to Seaside, passing through Rainier, Clatskanie and Astoria.

AERONAUTICS

M. Paulhan, a French aviator of prominence, has to his credit the distinction of being the first to use an aeroplane for calling purposes. Wishing to pay a visit to the Chateau Taintignier, some miles distant from the aerodrome at Tournal, France, he pointed his machine in that direction and flew leisurely across country, settling gently near the entrance to the chateau. After chatting for a short time with his friends the aviator remounted the machine and flew back to the aerodrome. He was absent for about an hour and a half, and tremendous enthusiasm greeted his return.

On Monday, September 13, Lieutenant Frank Lamb, United States Signal Corps, accompanied by Lieutenant Humphreys, of the Engineer Corps, made a balloon ascension as part of the general plan of instructing the Signal Corps men in aerial navigation.

The Matin, of Paris has offered prizes to the extent of \$20,000 for an aeroplane town-to-town flight to be won before the last day of August next year. The aviator is to leave Paris, go to Dijon. a distance of 200 miles, thence to Belfort. Nancy. Lille, and back to Paris. The whole circuit is about 900 miles. A committee will be appointed to draw up the conditions of the competition.

The Aero Club of Long Island has been formed by a number of young men of Richmond Hill. The officers are: C. Fred Rockstroh, president; William T. Newell, secretary; Joseph K. Post, treasurer. The other charter members include Henry T. Newell, William A. Kirk and Edward Durant. Several of the members are building models of airships and gliders. All young men over eighteen years of age who are residents of Long Island are invited to join the society.

The Aero Club of St. Louis has received five entries for the dirigible races which are to be conducted in October. They are Thomas Baldwin, Roy Knabenshue, Lincoln Beachey, John A. Riggs, of Hot Springs, and Claude Zellers and W. J. Smith, of East St. Louis.

Entry blanks were sent out last week by the management of the Indianapolis Motor Speedway for three days of aerial contests, ta take place on October 15, 16 and 17. Events for aeroplanes, dirigible and ordinary balloons are scheduled.

The Aeroplane Club of Great Britain and Ireland is arranging for a trip to Paris from September 25 to 29. The visitors will inspect the worksshops of the leading manufacturers of aeroplane and light-weight engines, and will visit the International Exhibition, which will then be in progress in Paris.

It is expected that the Wright aeroplanes acquired by the British War Office will be delivered in a few days, and that Orville Wright will superintend the official trials at Aldershot in October.

A Swedish aviator, Dr. F. Hansen, a few days ago made an attempt on a Voisin biplane to fly across the Sound between Helsinborg (Sweden) and Elsinore (Denmark). His machine, however, fell into the sea close to the Swedish coast, whence it and the pilot were quickly rescued.

Aviator Willard, who went to Ottawa. Canada, a short time ago with the Curtiss aeroplane of the Aeronautic Society. got his second ducking in Lake Ontario last week. He made an ascent at Toronto, and after reaching a height of about 50 feet, the engine of the machine stopped and Willard fell into the lake, but no serious damage was done.

About 200 members of the German Reichstag have accepted an invitation extended by Count Zeppelin to examine his airship and ride therein if they desire. He will take aloft about fifteen of his visitors at a time. Among his guests will be Colonial Secretary Dernburg and Herr Delbruck, the Prussian Minister of Commerce.

A pamphlet written by Captain Von Hildebrand, of Berlin, on the Wright brothers is being widely sold in Germany. Some pride is taken in the fact that the grandfather of the Wrights was a German.

Gate Versus Quadrant Steering

In comparing the relative advantages of the "gate" and "quadrant" there are two points of view to be considered, says a writer in the Automotor Journal.

- (1) The effect on the design of the gear-box and general arrangement of the striking mechanism.
 - (2) The case of gear changing.
- 1. The gate system enables two or more sliding members to be used in the This greatly reduces the gear-box. length and weight of the gear-box, and the length of the shafts between the bearings; long shafts are liable to spring, especially when the drive is taking place, about midway between the bearings, and quite a small amount of spring will make the gears run noisily, besides causing undue wear in both gears and bearings. Some cars are provided with bearings in the middle of the gear-box; this would be impossible with only one sliding member. Figs. 1 and 3 represent diagramatically, to the same scale, typical arrangements of gears to give three "speeds" forward and one "reverse."

For simplicity, both are shown with no "direct drive." Numberless different arrangements of gears can be made, but Figs. 1 and 3 represent types in common use, and will serve for comparison.

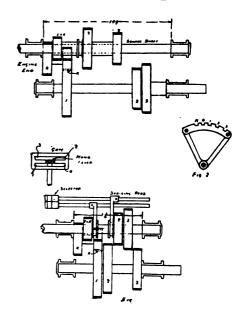
For convenience, in both cases all the wheels are shown as being the same width, and the "clearance" or "free position" on each side of each wheel as being one-eighth of the width of the wheels.

If, for comparison, the width of each wheel be taken as I in., and the clearance on each side as 1/2 in., the length between the bearings of the driving-shaft of the "quadrant" operated gear, Fig. I, comes to 141/2 ins., whereas, for the "gate" gear, Fig. 3, with two sliding members, the corresponding length is only 73/4 ins.

With four speeds and reverse operated from one lever, the difference in length becomes still more pronounced.

In Figs. 1 and 3, the first, second and third-speed wheels are marked, 1, 2, and 3, respectively, while the reverse wheels are marked R. R. and R., and in both cases the numbers indicate the position of the lever when any particular gear is it mesh.

The "striking-gear," connecting the hand-lever to the sliding-member, is



generally of a simple nature for "quadrant" gears, but in many cases the pins are made too small, and wear loose, with the result that gears may be considerably damanged through being only partly in mesh. Owing to the long travel required for the sliding-member, it is sometimes necessary to use an extra lever to multiply the motion. This increases the number of pins, and resultant backlash when wear takes place. With a "gate"-gear, however, the travel of the sliding-members is quite short, so that they can be worked direct from the

selector-lever, thus reducing the risk of backlash.

The striking and locking mechanism of a "gate" change should be completely enclosed to protect it from dirt; this is neatly done on some of the modern cars, but by no means on all.

2. With regard to the case of gear-changing, the "gate" in Fig. 3 certainly has an advantage when changing from second to third or third to second, but when passing "through the gate," say from first to second, three movements of the lever are necessary, i. e., forward, sidewise and again forward. This is easy enough when everything is working freely, but sometimes the mechanism may get a bit stiff, with the result that many gears are missed or "rasped" owing to the time lost in "getting through."

With a "quadrant" gear, given that the catch and trigger are working freely, there is no excuse for missing the notch, as if the trigger is released immediately after commencing to move the lever, it cannot very well fail to shoot into the next notch, while, in changing down to a lower gear, it is quite easy to hold the lever between the two notches, while the clutch is momentarily engaged when the engine has reached a speed approximating that corresponding to the lower gear. This, it may be mentioned, is a certain method of "changing down" silently on any car, and is easily acquired with practice.

An advantage is claimed for the "gate" in that a change can be made from any gear (or neutral) to any other gear without passing through the intermediate gears, but this is generally only required when starting on a down grade, under which condition it is easy enough to get straight on top with a "quadrant" gear.

A Comparison of Horse Powers

An interesting comparison of horse-power formulas is made possible through the table issued recently by the Pierce-Arrow Motor Car Company, of Buffalo, showing the horsepowers given to its motors by the formula used by the Association of Licensed Automobile Manufacturers, the Royal Automobile Club, of Great Britain, and by the method compiled by Worby Beaumont, the well-known English engineer, which has considerable vogue in England.

The A. L. A. M. formula is the one used in this country by most of the licensed manufacturers and in operation provides that the square of the bore shall be multiplied by the number of cylinders and that sum divided by 2.5, the result being the horsepower. This formula is based on a piston speed of 1,000 feet per minute. This year the Pierce-Arrow company is making cars of three horsepowers—36, 48 and

66. of these the only one that varies to any extent from the A. L. A. M. rating is the 36 hp. motor. This car was known as a 36 hp. car last year, as that was its actual rating, and as the increase in the size of the motor this year was not great, the title was not changed.

In the following horsepowers by various formulas the number of revolutious, under the A. L. A. M. standard would be 1,262 for the 36 and 48 hp. cars, and 1,091 for the 66 hp. car. The ratings are:

Formula.	36 hp.	48 hp.	66 hp.
A. L. A. M	38.40	48.6	66.20
Beaumont, 750 rev	30.48	43.32	63.72
Beaumont, 1,000 rev			
Royal Automobile Club	46.26	51.75	69.90

During August the Automobile Club of Buffalo admitted forty-nine new members.



WEEKLY JOURNAL DEVOTED TO THE INTERESTS OF AMERICAN AUTOMOBILISTS.

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A Combination of Rare Excellence

An amusing controversy has arisen over the claims of the advocates of two different routes between the Berkshire regions and New York. The matter possesses considerable interest by reason of the fact that on one side are ranged good hotels and bad roads, and on the other better roads and worse hotels.

The two routes in question are those passing through Great Barrington, Norfolk and Waterbury (known as the "Ideal Tour"), on the one hand, and through Poughkeepsie on the other. The former is a scenic route, the country being beautiful and the views most enchanting. But the roads over a section of this route are absolutely disgraceful. Connecticut has built a great many miles of improved highways, and one would imagine that the beautiful hill section in the northern part of the State would have received its share of attention. After one crosses the Massachusetts line, however, the roads are quite unworthy of the name until the neighborhood of Torrington is reached. North of that town they are simply narrow trails, winding up hill and down dale-sandy, rough and altogether abominable. From Torrington down through the Naugatuck Valley, past Waterbury and into Bridgeport, and on to the New York State line, they are all that the most exacting motorist could expect. Furthermore, the hotels are good and so located as to make desirable luncheon and night stops for the tourist. The route would be an ideal one, therefore, but for the existence of the stretch of bad roads referred to. It is an ideal route in name, but not in reality, but, as is natural, those interested in the hotels say very little about the bad portions, when dwelling upon the appropriateness of a tour through this region. Consequently many tourists undertake the trip without being aware of the bad roads they will encounter.

Touring has attained such enormous proportions that the patronage of those who tour has become a very important item to the bonifaces and others who cater to this class of trade. It has been demonstrated that motorists will go where there are scenic or other attractions, even if the roads are bad. But if the roads are good the number of visitors will increase enormously, especially if the hotels and inns are well appointed and up-to-date. In the case of the "Ideal Tour" referred to above, we have the combination of a beautiful country, good hotels and fine roads—with a very important break in the continuity of the latter.

It is here that the controversy in question has arisen. Better bear over to Poughkeepsie and come down the Hudson, and thus escape the atrocious roads of northern Connecticut, say the opponents of the Ideal Tour. To our mind, however, it is doubtful whether anything would be gained by so doing. The road to Poughkeepsie is better, of course, but New York is not in a position to throw stones at Connecticut so long as it fails to improve the road below Poughkeepsie. There are portions of it that are almost as bad as anything encountered in Connecticut, and until they are made over touring will be robbed of its pleasure so far as these particular spots are concerned.

Good roads, fine scenery and excellent hostelries are a trio that will draw tourists from far off sections. Each link in the chain that is missing weakens it and lessens the drawing power of the combination.

Against Imposition of Both Kinds

Portland, Ore., has some up-to-date chauffeurs. They have organized the Portland Chauffeurs' Association, the declared objects of which are to "protect the members from imposition from the public, as well as to keep out the riffraff of the drivers' profession who come into Portland and cause trouble for which local drivers are blamed." Drinking is prohibited while the members are engaged in driving cars. Praiseworthy aims these, and good will come if they are attained. It would be interesting, however, to know just what are the "impositions" of the public to which reference is made.

A shortage of cars is being predicted for 1910. Yet it was only a short time ago that we were told that 200,000 cars would be produced.

Some Valve Troubles and Their Causes

Many a difficult case of missing at very low speeds has been couunted for by the valve stem being a loose fit in the valve guide. Most valve guides are ci cast iron. If, however, it is necessary to bush them an excellent bush may be made out of mild steel, provided it is carbonized, i. e., soaked in carbonizing material such as bone, burnt leather, or scintilla, for an hour or more at a bright yellow heat closed up in a pot. Thus treated, mild steel will replace (more advantageously) cast iron anywhere, and has remarkable anti-friction proper-This same treatment can be applied with great success to all valves. Care is necessary not to attempt this to nickel steel valves, or any but mild steel valves of .18 per cent. carbon content or less. They have the virtue of not pitting, and the stems practically never wear at all. The Talbot Company's valves were always case hardened all over, and corrected by grinding after hardening, and it is well known that up to the end of 1908 that company had never changed a valve whatsoever.

Speaking of valves, another mysterious cause of apparent misfiring hard to locate was when the valve stem was too good a fit in the valve guide, and occasionally stuck up instead of coming down.

Another discrepancy has been found in many repair shops. The part of the cam which should have been truly circular was not so, and a bump or prominence left on the back sometimes lifted the valve slightly off its seat, and often caused the carburetter to ignite.

Mysterious missing has often been found to be due to the insulation of a low tension wire being damaged by a clip or other fastening where the wire is led along the frame, or fastened on to the dashboard. One of the best plans

in all these cases is to take a fresh piece of insulated wire, or even ordinary wire, and skip the regular circuit. This will generally show where the fault lies.

Many cars have very faulty return at the commutator. Some cars, for instance, have the commutator under the footboard. A car would come in for misfiring. The first thing a smart repairer would do would be to clean a place on the shaft driving the commutator, and put a temporary metal brush rubbing on this clean place, and fastened to the frame with a hand vice. This almost always cured the missing straight off. Of course, to make a permanent repair a more correct return could be easily devised, but the chief point is to find out exactly where the fault lies.

Successful Show for Minneapolis

The automobile show held at the Fair Grounds, in Minneapolis, Wis., during the week of September 6 to 11, proved a very successful affair from start to finish. It was held on the ground floor of the big grand stand and exposition building, which was covered with thousands of yards of blue and white decorations.

More than two score exhibitors had space in the grandstand exhibition. Some of the booths were devoted entirely to accessories and allied lines.

Recommends This Route to Philadelphia

A Newark, N. J., motorist, H. C. Heidrich, warns motorists to look out for the grade crossing on the right near West Palmyra Station, on the road to Philadelphia. Mr. Heidrich says that the best route to Philadelphia is via Trenton, Hightstown and Windsor and across the bridge into Pennsylvania. Continue on to Hulmeville, Oxford, Frankford Turnpike. This road leads to Broad Street.

TRADE DEPARTMENT

"New Series" 15-30 h.p. Stearns for 1910

For a car that made its debut only last year, the 15-30 hp. Stearns has made big strides into public favor. From the outset it was a success. Built in toy tonneau, touring, limousine and landaulet styles, it pleased by its attractive lines and confirmed the good impression by its behavior on the road.

The 15-30 hp. chassis embodies in general design the same structural and mechanical features of former higher-powered models of this car.

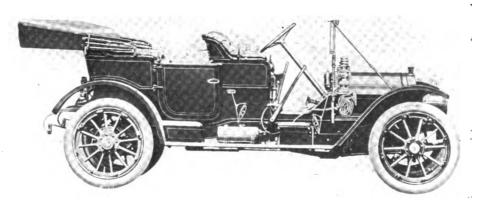
The frame is narrowed in front to permit a sharp turning angle; while maintaining the standard tread of the wheels, this car will turn in a circle of 34 feet—a decided advantage in handling a car in narrow streets.

A double drop in the frame permits the mounting of a body of very graceful design with extremely low doors. The step from running board into the body is consequently very slight, and in service where one gets in and out of the car frequently, as in shopping, this feature is particularly pleasing. A drop in the frame also lowers the center of gravity of the car, increasing its stability and giving greater security when riding at high speed.

The spring suspension is of the semielliptic type in front and of the threequarter elliptic type in the rear. It is extremely successful and makes the car ride very easily and smoothly over rough roads.

The motor is of 4½ bore by 45% stroke, and differs from the larger motors only in relative size of parts and in the casting of the four cylinders in one unit instead of two. This latter feature simplifies the water, carburetter and exhaust piping and gives greater compactness, fewer pieces and more accessibility to parts. It has ball-bearing mounted crank and cam-shafts. All valves are of the same size and on one side; centrifugal water pump and other mechanical details of exactly the same type as on former motors.

The lubrication is by the constant circulation system now in general use. The reservoir on the bottom of the crankcase supplies oil to a gear-driven pump. The pump discharges the oil on the connecting rods and is drained through



STEARNS FIVE-PASSENGER TOURING CAR

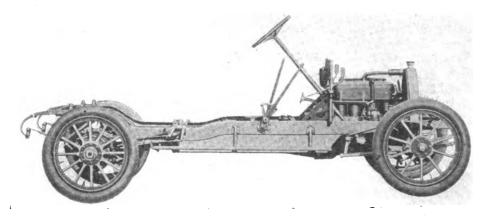
screens back into the reservoir; the system is simple, but highly effective.

The carburetter is the same type which has been so successful on the 30-60 model. It consists of practically two carburetters, fed from the same float chamber and actuated by the same throttle lever. The mixing chamber is divided in such manner that for a small opening of throttle the small jet only is exposed to the suction of the motor, and all of the gasolene used to develop up to 15 hp. is supplied through this one

The clutch is of the well-known multiple disc type. Its characteristics, smoothness of operation, reliability and simplicity are assured in this car by correct design and workmanship.

A propeller shaft and one universal joint transmits the power from the clutch to the transmission, which is located on the rear axle.

The transmission is of the selective type and gives three speeds forward and reverse. The gears are of chromenickel steel, properly heat treated, and



RIGHT SIDE OF 15-30 HP. STEARNS CHASSIS

nozzle. A further opening of the throttle brings into action the larger part of the carburetter with its gasolene jet, and a greater supply of fuel is available sufficient, in fact, to produce more power than the maximum rating of the motor. Correctness of mixing proportions and economy of gasolene are assured by this arrangement. It accounts in part for the noted smooth running, flexibility and power of the motor.

The ignition is by the Bosch dual system, consisting of an arrangement of high-tension magneto and single vibrator coil, whereby, with a single set of spark plugs, a double system of ignition is obtained. A simple switch on the dashboard permits running the motor either on the battery or magneto.

are of liberal dimensions. The shafts are also of this steel, all mounted on ball-bearings.

The rear axle is of original design, and worthy of special note. It is machined from a one-piece drop forging of nickel steel. It has an open truss-like center portion of I-beam section, which spans the transmission case top and serves as a support for it. The ends of the forging are turned to mount the wheel bearings. It is bored through the center to take the drive shafts, which extend from the differential gears in the transmission through the axle to jaw clutches on the outer end of the rear hub. This gives an axle which is without a joint, and supports the weight of the car entirely independent of the transmission. The transmission is relieved of all strain other than that of transmitting the power of the engine to the rear wheels. The whole construction is ideal, in that it gives absolute protection for the driving mechanism from all road shocks and strains, but takes such strains on a hollow axle, which, for strength and reliability, is only equaled by the solid of the Stearns chain-driven car.

A torsion tube extends from the forward end of the transmission case to a pivoted yoke. This encloses the propeller shaft and its universal joint, and

serves both as a torsion and radius rod.

The brakes act directly on the rear hub flanges. The service or foot-brake is a contracting band on the outside of the drum, and is operated by a footpedal in the usual way. The emergency brake is an internal expanding shoe and is operated by a hand lever. Both brakes are fabric lined and easily adjusted.

The wheels, front and rear, are mounted on adjustable roller bearings. Continental detachable rims are now regularly supplied as standard equipment.

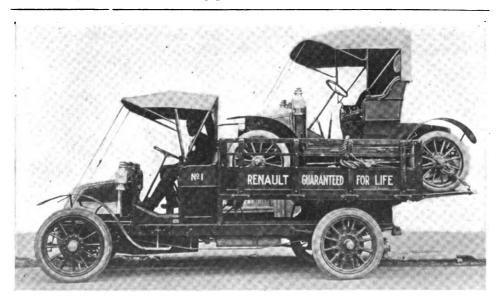
Firestone Elects Officers and Reports

At the annual meeting of the Firestone Tire and Rubber Company, the following officers were elected: H. S. Firestone, president and general manager; Will Christy, vice-president; S. G. Carkhuff, secretary, and L. E. Sisler, treasurer.

The annual report showed an increase in sales of 50 per cent. over the previous fiscal year. In order to keep pace with their sales, the Firestone Company is planning to erect an immense tire plant on land purchased a few days ago for that purpose.

To Distribute Continentals in Nebraska

The Western Automobile Supply Company, Omaha, Neb., will hereafter handle Continental tires and demountable rims for the State of Nebraska.



THE NEWEST RENAULT COMMERCIAL VEHICLE—A 10-14 HP. TWO-TON TRUCK

New Mora Light Four for 1910

In the 1910 Light Four Mora the Mora Motor Car Co. have designed a car which goes to the limit in \$2,500 value. The new model is the fifth of the type which the well-known Newark, N. Y., concern has offered to the public. It includes all of the strong features of design and construction that were embodied in the previous models, the refinements that have been made in past years with a number that are offered for this year. It has considerable more power than previous models, with practically no addition to weight.

The motor is a four-cylinder, Vertical, water cooled, with integral cast jackets, bore 4½ inches, stroke 5½ inches, cylinders cast in pairs, with the exhaust on one side and intake on the other, large valves, of ample size to insure free intake and exhaust. increase in the size of the cylinders and valves represents the principal motor change over previous models. The size and weight of crank-shaft has been increased in proportion, as has also the size of the bearings. Otherwise the features that have contributed so much to the strenuously reliable success of previous models are retained.

The bearings are considerably larger than general practice, and crank-shaft sufficiently heavy to afford a factor of safety which makes it practically unbreakable.

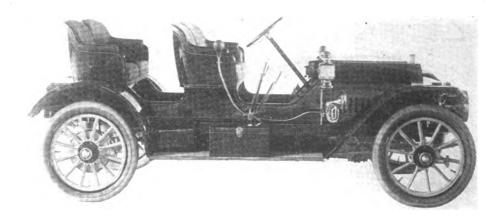
All engine bearings are made of Parson's white bronze, which has a high heat resisting quality that insures long life, but which is nevertheless sufficiently soft that the bearing will melt and no damage to the crank shaft result, if through failure of the operator to provide oil, the bearings were to run dry. This is important, as the replacement of a bearing is simple and inexpensive, while replacement of a crankshaft is not

The valves are of large size nickel steel heads, electrically welded to carbon steel stems, mechanically operated and interchangeable.

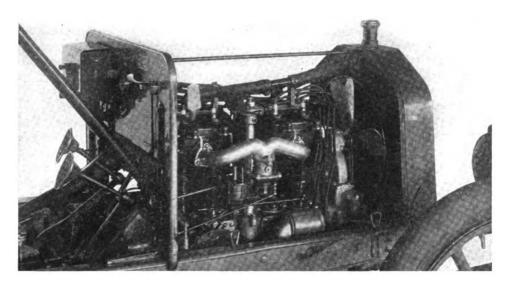
Case hardened cams are both keyed and pinned to cam-shaft of one inch diameter.

Both the engine gears and the gear that drives the fan are securely sealed against dust and water by the aluminum housing provided at the front end of the engine case for that purpose.

The clutch is of inverted cone type,



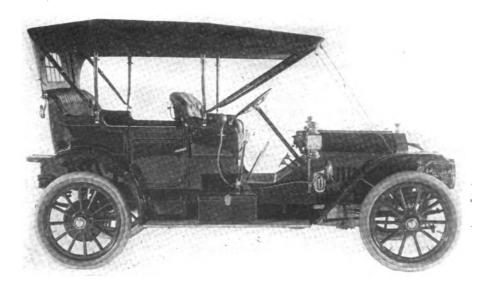
MORA LIGHT FOUR RACY TYPE



INTAKE SIDE OF MORA ENGINE

leather faced, with ample friction surface. Practically all liability to wear is eliminated by making it self-contained as to thrust, so that when the engine is pulling the car the clutch is practically an integral part of the fly wheel, consequently the only time wear on the clutch could occur is when the

clutch is disengaged, which amount of time represents an inconsiderable fraction of the time that the engine is in operation. Even this slight amount of wear is provided for by the use of an adjustable ball gearing trunion, so that when the clutch is disengaged the thrust is carried on ball bearings.



MORA LIGHT FOUR TOURER

The transmission is all annular ball bearing, selective type, three speeds forward and reverse. The transmission is a complete unit, removable in a few minutes so that in case a flaw in material should develop the complete transmission could, if desired, be returned to the factory for repairs, or in the event of emergency, an entire new transmission could be quickly substituted.

The shaft drive to rear axle operates direct on high through the Mora universal point.

The rear axle is of the semi-floating type, bevel-gear drive and operates on roller bearings. The driving gears are stub tooth, specially cut in such manner as to lend very much more than usual strength to the driving pinion, thus obviating another general source of considerable trouble.

The brakes consist of two external and two internal, operating on rear wheel drums. A larger drum than usual (14 inches by 2 inches) is used, and there is a compensating brake bar, which contributes an equal pull on both brakes regardless of difference in adjustment, and insures against skidding from having one wheel hold while the other runs free.

The front axle is of I-beam construction, drop forging, made in one piece, with integral spring seats. This axle is amply strong enough to carry a car of several hundred pounds more weight than the Light Four Mora, and is therefore dependable.

The steering gear is of non-reversible type, with the spark and throttle levers carried on top of the steering-gear column.

The frame is of pressed steel, dropped in the rear to admit of ample clearance for rear axle, and offset in front to allow free swing of front wheels. It is so designed and constructed with integral gussett plates as to provide unusual strength for a car so light as the Mora, and is braced crosswise of itself and additionally stiffened by the trussed engine base, so that there is no chance of its springing or twisting even under the hardest possible road use.

The rear springs are of the well-known Mora three-fourths platform type. The Mora rear spring construction is not only easy riding, but in addition accomplishes a very important mechanical In ordinary construction, where semi-elliptic rear springs are used, the rear end of the rear spring is necessarily fastened rigidly to the rear end of the frame. This, with the necessary rigid connection on the front springs, means that the frame is held by its four corners, consequently in traversing uneven roads where the front wheel on one side and the rear wheel on the other are at different heights, the frame is subjected to a strain, which has a tendency to loosen bolts and rivets, and is almost sure to weaken the frame, but with the Mora spring construction this strain is almost if not entirely relieved by the crosswise rear spring, which gives the practical effect of threepoint suspension to the frame. spring construction which saves the frame from strain also saves the passengers from jolts, makes riding in the tonneau luxuriously comfortable, and commends itself to the ladies.

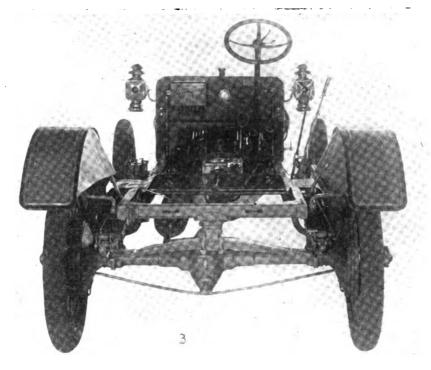
The front springs are semi-elliptic and rather stiff, to permit of easy and safe steering at high speed, the passenger load being carried over the rear springs, and most of the dependence for easy riding qualities placed on the latter.

The wheels are artillery type 34 inches in diameter, 4-inch tires. The rear wheels have 12 spokes and the front wheels 10 spokes each.

The engine oiling system is improved in the 1910 model with a view to mak-

ing it positively automatic. There is a false bottom cast in and integral with the lower half of the engine base in which the oil supply is carried. From this reservoir the oil is pumped by a gear-driven pump that supplies a great deal more oil than is needed to a small that there is a surplus always passing through the engine, the danger of bearings going dry is eliminated.

The sight feeds do not require to be adjusted and their only purpose is to enable the operator to occasionally assure himself that the pipes of the system



MORA CHASSIS FROM THE REAR

reservoir attached to the engine on the inside of the hood. From here it passes into a number of sight feeds through copper pipe connection to crank-shaft bearings and cylinders. The overflow from these bearings drops into the bottom of the engine crank case proper, where is it maintained at a proper level and used on the splash system principle. The surplus immediately drains back into the main reservoir through a small stand-pipe, which is adjustable. Therefore, the oiling is both direct feed and splash system, and because of the fact

have not been stopped up by foreign matter.

The Mora system provides two absolutely separate and independently controlled systems of ignition; the first is by battery and timer through coil to one set of spark plugs, and the second by magneto to another set of spark plugs. Each system is controlled by a separate switch, so that in case of trouble with one, it cannot in any way complicate operation of the car with the other.

By proper manipulation of the dash lever connected with the carburetter

just at the time of stopping, so as to leave a rich mixture in the cylinders, the engine will, in moderate weather, almost always start, even after standing several hours, when the switch connected with the battery system is thrown on.

The radiator is of the vertical spiral

tube type, of ample size. The fan is gear-driven through a friction clutch, which works automatically. A centrifugal pump supplies the circulation, which not only passes around the cylinder walls adjacent to the pistons and firing chamber, but also envelopes the inlet and exhaust valves.

Firestone to Erect a Big Factory

What will be one of the largest and most complete tire factories in the world will soon be erected by the Firestone Tire & Rubber Co., in Akron, Ohio, on a fifteen-acre tract of land.

The erection of the new buildings shows, in a manner, the rapid expansion of the company, which, though one of the youngest in the industry, is one of the largest.

The Firestone Company, founded by H. S. Firestone in 1900, had a modest beginning, but its growth has been rapid, so much so that factory additions have been necessary from time to time, finally making necessary the building of a new plant.

Though the company was founded in

1900, it was not until the fall of 1902 that it began to make tires in its own factory, and then in a small one-story, tiled structure, in which there was employed but twenty men. Almost from the start Firestones became popular with motorists. At present the company has an immense four-story building, equipped with the best machinery obtainable, and employs 600 men. Even with this complete plant, it has been impossible to produce rapidly enough to satisfy the demand.

With its new factory, equipped with more machinery and of the very latest model, and employing more men, it will be possible to turn out a much larger number, and, if such a thing is possible, better tires.

How His Tires Stood Up On Transcontinental Trip

Testimony to the excellence of Fisk bolted-on tires is given by George C. Row, of Chicago, who recently completed a trip from that city to San Francisco in a Stearns car. In crossing the Rocky Mountains and the thousands of miles of bad roads en route, he expected considerable tire trouble, but only one puncture, the work of a sharp nail, was experienced throughout the trip. When this occurred, the driver unbolted his casing and was on his way again inside of five mnutes singing merrily.

Mr. Row stated that his car, with its load, weighed 6,200 pounds, and that

while the tires showed the effects of the hard going to which they had been subjected, they were in perfectly sound condition when the Golden Gate was reached.

Will Work Double Time on Mitchells

The Mitchell Motor Car Company with 895 men on the pay roll on September 10, will operate 24 hours a day beginning this week. This is made necessary by the great influx of orders from all parts of the country. The officials figure on operating day and night shifts at least until spring.

On the D. & C. Line in September

In September the breezes off the land are laden with odors from ripe orchards, and the scenic beauties of the early autumnal sunsets and various cloud effects are indescribable. At such times the D. & C. Lake Line operates daily service between Detroit, Buffalo, Niagara Falls and Cleveland, and regular service to Macinac via the Coast Line.

Big Rental Required for this Garage

The Baker vehicle agency's new building in Chicago, which, when complete, will be the finest electric garage in the United States, will be ready for use May 1, 1910. A two-story brick garage is being erected on a 50x150-foot property on Michigan Avenue, in an ideal location. To secure these quarters meant a large cash outlay, the lease of ten years calling for a rental of \$25,000 per year for the first five years and \$27,500 per year for the next five years.

The new building will be equipped with many features that will give it extraordnary distinction among garages.

Continental tires will be regular equipment on the Stearns cars in 1910.



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INDEX TO ADVERTISERS

Automobiles (Electric)—	
Baker Motor Vehicle Co	1 (5 (
TOOL MOON VEHICLE CO	
Automobiles (Gasolene)—	
Chaimers-Detroit Motor Co	1649 1647
Haynes Automobile Co	1650
Inter-State Automobile Co. Locomobile Co. of America. Mathema Mosor Co. Co.	1650 1650
Mitchell Motor Car Co Palmer & Singer Mfg. Co	1647 1650
	Canas
The Pierce-Arrow Motor Car Co.	
Renault Freres Selling Branch The F. B. Stearns Co New York to Boston Tour sterens-Duryea Co New York to Boston Tour Studebaker Automobile Co	1620
Studebaker Automobile Co New York to Boston Tour	1617
The E. R. Thomas Motor Co.	1650
Winton Motor Carriage CoInside Front	Cover
A	
Automobiles (Steam)—	_
The White Company	Cover
	,.
Batteries-	
Stanley & Patterson	1590
Bodies-	
Springfield Metal Body Co	
Auto Rebuilding Co	1651
New York to Boston Tour	1651
Champagnes-	
Champagnes— Pommery.	
Champagnes— Pommery Dust Preventives—	
Champagnes— Pommery.	
Champagnes— Pommery. Dust Preventives— Tarvia-Barrett Mfg. Co.	
Champagnes— Pommery Dust Preventives— Tarvia-Barrett Mfg. Co Electric Welding—	1590
Champagnes— Pommery. Dust Preventives— Tarvia-Barrett Mfg. Co.	1590
Champagnes— Pommery Dust Preventives— Tarvia-Barrett Mfg. Co Electric Welding—	1590
Champagnes— Pommery. Dust Preventives— Tarvia-Barrett Mfg. Co Electric Welding— Standard Welding Co	1590
Champagnes— Pommery. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co.	1590
Champagnes— Pommery. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co.	1590 1587
Champagnes— Pommery. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co.	1590 1587
Champagnes— Pommery. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Fenders Auto-Rebuilding Co.	1590 1587
Champagnes— Pommery. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Fenders Auto-Rebuilding Co. Graphite—	1590 1587 1651
Champagnes— Pommery. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Fenders Auto-Rebuilding Co.	1590 1587 1651
Champagnes— Pommery. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Fenders Auto-Rebuilding Co. Graphite— Joseph Dixon Crucible Co.	1590 1587 1651
Champagnes— Pommery. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Fenders Auto-Rebuilding Co. Graphite— Joseph Dixon Crucible Co Ignition Devices— A. R. Mosler & Co.	1590 1587 1651
Champagnes— Pommery. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Fenders Auto-Rebuilding Co. Graphite— Joseph Dixon Crucible Co. Ignition Devices— A. R. Mosler & Co. Bosch Magneto Co.	1590 1587 1651 1650
Champagnes— Pommery. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Fenders Auto-Rebuilding Co. Graphite— Joseph Dixon Crucible Co Ignition Devices— A. R. Mosler & Co. Bosch Magneto Co. C. F. Splitdorf. Elisemann Magneto—Lavalette & Co.	1590 1587 1651 1650 1649 1589 1651 1648
Champagnes— Pommery. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Fenders Auto-Rebuilding Co. Graphite— Joseph Dixon Crucible Co Ignition Devices— A. R. Mosler & Co. Bosch Magneto Co. C. F. Splitdorf. Elisemann Magneto—Lavalette & Co.	1590 1587 1651 1650 1649 1589 1651 1648
Champagnes— Pommery. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Fenders— Auto-Rebuilding Co. Graphite— Joseph Dixon Crucible Co Ignition Devices— A. R. Mosler & Co. Bosch Magneto Co. C. F. Spikdorf.	1590 1587 1651 1650 1649 1589 1651 1648
Champagnes— Pommery. Dust Preventives— Tarvia-Barrett Mfg. Co. Electric Welding— Standard Welding Co. Eye Tonic— Murine Eye Remedy Co. Fenders Auto-Rebuilding Co. Graphite— Joseph Dixon Crucible Co Ignition Devices— A. R. Mosler & Co. Bosch Magneto Co. C. F. Splitdorf. Elisemann Magneto—Lavalette & Co.	1590 1587 1651 1650 1649 1589 1651 1648

Lamps—	
Badger Brass Mfg. Co Gray & Davis	159
Leather	159
The Pantasote Co	133
Lubricants— Columbia Lubricants Co	164
Joseph Dixon Crucible Co. Vacuum Oil Co.	. 165
	,,
Magnetos— Bosch Magneto Co	158
C. F. Spingori	103
Elsemann MagnetoLavalette & Co	
J. S. Bretz Co	159
Oils	
Columbia Lubricants Co	164 159
Parts—	
Billings & Spencer	165 158
Photo Engravers-	
Sterling Engraving Co	165
Road Binder Robeson Process Co	164
Seats	
Auto Rebuilding Co	165
Second-Hand Dealers— Times Square Auto Co	164
Shock Absorbers—	
Bi-Cal-Ky Auxiliary Spring Co	165 165
	.0,
Signalling Devices— Nightingale Whistle Co	165
Spare Wheels-	
United States Spare Wheel Co	165
Spark Plugs-	
A. R. Mosler & Co	164
	161
Timers— A R. Mosler & Co	1649
Tires—	104
Ajax-Grieh Rubber Co	165
Continental Caoutchouc Co	1651
Diamond Rubber Co	1648
Pisk Rubber Co. Morgan & Wright.	1649
Republic Rubber Co	1650
Tire Grips—	
Weed Chain Tire Grip	1648
Tops Sprague Umbrella Co	145
	1651
Travel—	
Detroit & Cleveland Navigation Co	1585
Wind Shields-	



News Notes

The Houston (Tex). Fire Department has equipped itself with a new E-M-F. automobile.

The Morgan & Wright Minneapolis branch is located in new quarters at 911 First Avenue South.

A new two-story brick garage is to be constructed in Omaha, Neb., by the Buick agency of that city.

The Milwaukee Board of Fire Underwriters is planning to purchase an automobile insurance patrol wagon.

At a recent meeting of the stockholders of the Findlay Carriage Company, of Findlay, O., it was decided to engage in the manufacture of automobiles.

The Drummond Carriage Company, Omaha, Neb., has announced that it is closing out its stock of carriages and buggies for the purpose of making room for an extensive line of automobiles.

A company to be known as the Minneapolis Motor and Truck Company has been organized in Minneapolis with a capital of \$500,000 to manufacture touring cars and trucks. Land has been purchased for a factory and work will be started as soon as possible on a large concrete building.

The Black Manufacturing Company of Chicago, makers of the Black high-wheeled automobiles. has arranged to market the entire output of the 'Crow Motor Car Company. The latter concern is a new one, located at Elkhart, Ind.

The Aberdeen and Hoquiam Transportation Company has been organized in the State of Washington for the purpose of running a line of freight and passenger automobiles between Hoquiam, Aberdeen and Montesano, and another line to Tacoma. For traffic between Hoquiam, Aberdeen and Montesano a twenty-passenger car will be used, and for the Tacoma run a combined passenger and freight car will be utilized.

All the Studebaker branches in Colorado have been incorporated into one concern under the name of the Studebaker Colorado Vehicle Company. The headquarters for the new concern will be located at the carriage warerooms at Fiftieth and Blake Streets, Denver, and the garage at 1532 Broadway. Frank S. Fish, of South Bend, Ind., is the president of the concern; W. S. Hunnewell. of Denver, vice-president, manager and treasurer. and Elias K. Pound, of Denver, secretary.



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INCORPORATIONS

Helena, Mont.—Helena Automobile Company. with \$2,000 capital. Incorporators: C. M. Brewer, C. H. McCully, Jr., and J. McCully.

Milwaukee, Wis.—Mueller Motor Car Company, with \$20,000 capital. Incorporators: H. C. Mueller, Charles J. Hirsch, and Peter Barth.

Chicago, Ill.—United Motors Company, with \$5,000 capital, to manufacture automobiles. Incorporators: W. F. Gray. George I. Derr, and D. B. Cole.

East Cleveland, O.—Economy Motor Car Company, with \$10,000 capital. Incorporators: W. E. White, F. T. Corell, O. E. Smith, C. H. Clark and W. W. Clark.

Indianapolis, Ind.—Conduitt Automobile Company, with \$10.000 capital. Incorporators: A. W. Conduitt, J. A. Boyd and A. J. Cochran.

New York.—The Allen Taxicab Company, of New York, with \$1,000,000 capital. Incorporators: Archibald E. Wilson. George A. K. Sutton, G. E. Holmes, T. F. Barrett and Kenneth K. McLaren.

Toledo, O.—Blevins-Studebaker Auto Company, with \$10,000 capital. Incorporators: H. W. Blevins, C. P. Lauchmans, T. E. Coles, F. W. Coughling, and P. F. Parrott.

Chicago, III.—Marquette Motor Vehicle Company, with \$20,000 capital, to manufacture automobiles. Incorporators: I. L. Marks, I. J. Marks, and I. B. Lipson.

Bridgeport, Conn.— Eddy-Sherwood Carriage and Motor Company, with \$5,000 capital. Incorporators: H. M. Sherwood, George E. Eddy, and George S. Jennings.

San Antonio, Tex.—Automobile Sales and Supply Company, with \$20,000 capital. Incorporators: Sidney H. Weiss, E. A. Kalkhurst and Roy Campbell.

Fort Worth, Tex.—Hodge-Pemberton Auto Company, with \$10,000 capital. Incorporators: J. T. Pemberton, C. T. Hodge, B. H. Martin and others.

Trenton, N. J.—Motor Service Company, with \$100,000 capital. Incorporators: Harvey L. Lechner, Doering Bellinger and W. G. Jones.

Olympia, Wash.—The Aberdeen and Hoquiam Transportation Company, with \$35.000 capital. Incorporators: C. G. Palmberg. Albin W. Norblad, G. A. Hemple, Thomas Trivonen, C. E. Reikki, and John Olin.

Mention "Automobile Topics" when writing.

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Automobile Calendar

September 11-19.—Florio Cup Race, under the auspices of the Automobile Club of Bologne, Italy.

September 15-18.—Annual National Motor Boat Carnival on the Hudson River, under the auspices of the Motor Boat Club of America.

September 18.—Automobile Track Race at Syracuse, N. Y., under auspices of Automobile Club of Syracuse.

September 18.—Decorated Automobile Parade at Denver, Colo.. in connection with the second annual Colorado Inter-State Fair and Exposition.

September 18-October 3.—International Aeronautical Exposition at the Grand Palais, Paris.

September 19.-Road Race at Los Angeles, Cal.

September 19.—Semmering Hill-climb.

September 19.—First Annual Outing, Field and Ladies' Day of the New York Automobile Trade Athletic Association.

September 20, 21, 22.—Second Annual Efficiency Tour Around Long Island under the auspices of the New York Automobile Trade Association.

September 21.—Stock Car Sweepstakes on Long Island course, under direction of Motor Contest Asociation, W. J. Morgan, manager.

September 21-23.—Good Roads Convention of the American Automobile Association at Cleveland, Ohio.

September 21-29.—Frank A. Munsey reliability tour from Washington to Boston and return.

September 24-25. — Twenty-four hour race and short distance events, Indianapolis Motor Speedway.

September 24-25.—Third twenty-four hour race at Brighton Beach, New York, under the direction of the Motor Racing Association.

September 24-October 3.—Aeroplane meeting at Lyons, France.

September 24-25.—Twenty-four-hour race at State Fair Park, Milwaukee, Wis., under direction of Milwaukee Automobile Club.

September 25-October 8.—Aeronautical events in connection with the Hudson-Fulton celebration, New York.

September 30.—Floral Automobile Parade, under direction of the Washington, D. C., Automobile Club.

September 30-October 8.—Exhibition of aeronautic motor engines at Paris.

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George Robertson, driver of the victorious Simplex car in the big Lowell Stock Chassis Competition of September 8, used

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- October 2-17.—Aeronautical Salon in the Grand Palais, Paris, France.
- October 4.—Dirigible balloon and aeroplane events, under the direction of the Aero Club of St. Louis.
- October 8-9.—First annual reliability and economy contest of the Louisville (Ky.) Automobile Club.
- October 8-9.—National automobile race, Inquai apolis Motor Speedway.
- October 9.—Second annual stock chassis race in Fairmount Park, Philadelphia, under the auspices of the Quaker City Motor Club.
- October 9-24.—Aeroplane meeting at Marseilles, France.
- October 15, 16, 17.—Three-days of aviation contests at the Indianapolis Speedway grounds.
- October 16-31.—Automobile Show, to be held in City Park Armory at Atlanta, Ga. Auspices of National Association of Automobile Manufacturers. Samuel A. Miles and Alfred Reeves, managers, 7 East 42d Street, New York
- October 18-30.—First Automobile Show in Dallas, Tex., under auspices of Dallas Automobile Dealers' Club.
- October 23.—Road Race at San Francisco, Cal., under auspices of the Automobile Club of California.
- October 28-30.—Three-days' race meet in Dallas, Tex.
- October 30.—Vanderbilt Cup race on Long Island under the auspices of the Motor Cups Holding Company.
- November 22.—Start from Denver, Colo., of the Flag-to-Flag reliability run.
- December 29-30.—Fourth Annual Mid-Winter Endurance Contest, under direction of the Quaker City Motor Club.
- December 31-January 7.—New York City, Grand Central Palace, Tenth International Automobile Show. Under the management of the American Motor Car Manufacturers' Association with the Importers' Automobile Salon and the Motor and Accessory Manufacturers. Alfred Reeves, general manager, 505 Fifth Avenue, New York City.
- January 8-15.—Tenth Annual National Automobile Show in Madison Square Garden, New York, under the auspices of the Association of Licensed Automobile Manufacturers.
- February 5-12.—Ninth Annual National Automobile Show in Chicago, under the auspices of the National Association of Automobile Manufacturers.
- February 22-26.—Fourth annual Automobile Show in Convention Hall, Kansas City, Mo.



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```
104—Richmond to Norfolk, Va.
105—Baltimore to Cumberland.
107—Baltimore to Washington, via Annapolis.
128—Philadelphia to Salisbury.
129—Salisbury to Norfolk.
224—Jackson to Rockledge.
225—Rockledge to Miami.
215—Philadelphia to Hagerstown.
216—Hagerstown to Wheeling.
217—Wheeling to Columbus.
218—Columbus to Lexington.
219—Lexington to Nashville.
220—Nashville to Chattanooga.
221—Chattanooga to Atlanta.
222—Atlanta to Savannah.
                         EASTERN STATES SECTION

-Philadelphia to Lakewood and Asbury Park.

-Johnstown to Pittsburg.

-Philadelphia to Washington.

-Philadelphia to Hanover.

-Hanover to Washington.

-New York to Lakewood, via Newark and New Brunswick.

-New York to Philadelphia, via Camden.

-New York to Sag Harbor, via Long Island's South Shore.

-New York to Orient Point V
                                                                                     EASTERN STATES SECTION
          96
121—New York to Philadelphia, via Camden.
122—New York to Sag Harbor, via Long Island's South Shore.
123—New York to Orient Point, L. I., via Long Island's North Shore.
229—Philadelphia to Atlantic City.
228—New York to Philadelphia, via Newark, New Brunswick and Trenton.
131—New York to Schooley's Mountains, via Morristown.
238—New York to Schooley's Mountains, via Morristown.
238—New York to Mohonk Lake.
136—New York to Mohonk Lake.
136—New York to Delaware Water Gap, via Plainfield and Somerville.
137—Delaware Water Gap to New York, via Port Jervis and Newburg.
147—Philadelphia to Delaware Water Gap.
152—New York to Pine Hill.
153—Pine Hill to Binghamton.
153-a—Binghamton to Bath.
154—Bath to Buffalo.
155—Buffalo to Auburn.
156—Auburn to Utica.
157—Utica to Albany.
158—Albany to New York.
227—Philadelphia to New York, via Trenton.
169—Gettysburg to Johnstown.
179—Johnstown to Pittsburg.
226—New York to New Jersey Coasts Resorts.
235—New York to Port Jervis.
235—New York to Greenwood Lake.
186—Philadelphia to Cape May.
187—New York to Greenwood Lake.
188—New York to Greenwood Lake.
238—New York to Lake Hopatcong.
200—Philadelphia to New York.
201—Guide to the Long Island Parkway (Vanderbilt Cup Course).
203—New York to Montauk Point (South Shore Route).
203—New York to Montauk Point (South Shore Route).
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201—New York to Villey Forge.
201—New York to Villey Forge.
202—New York to Wilkesbarre and Scranton.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  NEW ENGLAND STATES SECTION
                                                                                                                                                                                                                                                                                                                                                                                                              --Portland to Bar Harbor.
--Boston to Troy.
--Bridgeport to Pittsfield.
--New York to Pittsfield (Inland Route).
--New York to Pittsfield, via Poughkeepsie.
--Pittsfield to New York, via Hudson, Newburg and
                                                                                                                                                                                                                                                                                                                                                                                                                 Pittsfield to New York, via Hudson, Newburg and Tuxedo.

New York to Pittsfield, via Albany.

Bridgeport to Pittsfield.

New York to New Haven.

New Haven to Springfield.

Springfield to Boston.

New York to Narragansett Pier and Newport.

New York to Pittsfield, via Bridgeport and Waterbury.

Boston to Bretton Woods.

Bretton Woods to Lowell.

Lowell to Lenox.

Albany to Springfield.

Pittsfield to Burlington.

Berkshire Hills to New York (Inland Route).

New York to Hartford.

Hartford to Boston.
                                                                                                                                                                                                                                                                                                                                                                                        110
                                                                                                                                                                                                                                                                                                                                                                                       125
                                                                                                                                                                                                                                                                                                                                                                                        127
                                                                                                                                                                                                                                                                                                                                                                                       133-
                                                                                                                                                                                                                                                                                                                                                                                        149
                                                                                                                                                                                                                                                                                                                                                                                        150
                                                                                                                                                                                                                                                                                                                                                                                                                 Buffalo to Auburn.

Auburn to Saratoga.

Saratoga to Hotel Champlain.

Hotel Champlain to Montreal and Three Rivers.

Three Rivers to Quebec.

Quebec to Jackman.

Jackman to Waterville.

Waterville to Rangeley.

Rangeley to Bretton Woods.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1907 GLIDDEN TOUR SECTION
                                                                                                                                                                                                                                                                                                                                                                                       138—Chicago to South Bend.
139—South Bend to Indianapolis.
140—Indianapolis to Columbus, O.
141—Columbus, O., to Canton, O.
142—Canton, O., to Pittsburg.
144—Bedford Springs, Pa., to Baltimore.
145—Baltimore to Philadelphia.
146—Philadelphia to New York.
207—Pittsburg to Bedford.
208—Bedford to Gettysburg.
209—Gettysburg to Philadelphia.
210—Philadelphia to Washington, via Wilmington and Baltimore.
     230-New York to Wilker
248-New York to Lake George
                                                                                   WESTERN STATES SECTION
   WESTERN STATES
52—Cleveland to Pittsburg.
72—Kalamazoo to Detroit.
75—Rockford to Dubuque.
106—Cleveland to Columbus.
160—New York to Albany.
161—Albany to Syracuse.
162—Syracuse to Buffalo.
163—Buffalo, N. Y. to Astabula, O.
164—Astabula to Toledo, O.
165—Toledo, O., to Goshen, Ind.
166—Goshen, Ind., to Chicago.
173—Cincinnati to Bellefontaine.
174—Bellefontaine to Toledo.
205—Chicago to Bloomington.
206—Bloomington to St. Louis.
SOUTHERN STATES
                                                                                                                                                                                                                                                                                                                                                                                                                         more.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               1908 GLIDDEN TOUR SECTION
                                                                                                                                                                                                                                                                                                                                                                                       189—Buffalo to Pittsburg.
190—Pittsburg to Harrisburg.
191—Harrisburg to Milford.
192—Milford to Albany.
193—Albany to Boston.
194—Boston to Poland Springs, Me.
195—Poland Springs to Bethlehem, N. H.
196—Bethlehem to Saratoga.
                                                                                SOUTHERN STATES SECTION
     50—Louisville to Lexington.
101—Gettysburg to New Market, Va.
102—New Market to Natural Bridge, Va.
103—Staunton to Richmond, Va.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1909 A. A. A. TOUR SECTION
                                                                                                                                                                                                                                                                                                                                                                                           240-Detroit to Valparaiso.
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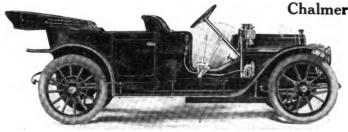
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But the car has 115-inch wheel base instead of 110.

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The new lines are the lines of the costliest cars.

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Our "30" this year will be equipped with a Bosch magneto—a Prest-O-Lite gas tank and two new style lamps, all for \$100. They would cost at regular prices \$175. We will furnish a genuine Lenox Mohair top for only \$75—a top that would cost \$125 anywhere else.

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Representative James Tawney, Chairman of House Appropriation Committee.

Attorney General Charles J. Bonaparte. Has purchased two Waverleys.
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TABLE OF CONTENTS

President Taft Being Escorted by Automobiles During His Stay in Chicago
Frontispiece 1664
Topics Frontispiece 1665
Curtiss is Welcomed on His Return to America 1667
Ruess Wins Mt. Baldy Race. 1669
Syracuse Meeting Graced by the Vice-President 1670
Motor Boat Races on the Hudson River 1670
Motor Boat Races on the Hudson River 1670
Mittel Ranger Reaches San Francisco 1670
Mittel Ranger Reaches San Francisco 1670
Twenty-Car Limit is Done Away With 1181
Twenty-five Cars Start in Munsey Run 1683
Automobile Topics Touring Supplement—New York to Boston 1680
Orange and Black for New Jersey Tag. 1690
Autos Damage Roads Less Than Horse-Drawn Vehicles 1691
Massachusetts Gets Data on Vehicular Traffic 1694
Allotments for Garden Show October 7 1697
Care of Acetylene Gas Lamps 1690
Good Roads Exhibit at the Alaska-Yukon-Pacific Exposition 1706
Good Roads Exhibit at the Alaska-Yukon-Pacific Exposition 1706
Good Quality Inner Tubes Save Casings 1712
Rocky Alvers 1715
Rocky Adversibers 1712
Rocky Adversibers 1712
Rocky Adversibers 1714
Relevant Metale 1711
Selden Patent Litigation Probabilities 1711
Relevant Advertisers 1714
Rese Notes 1715
Rocoporations 7616
Automobile Calendar 1717

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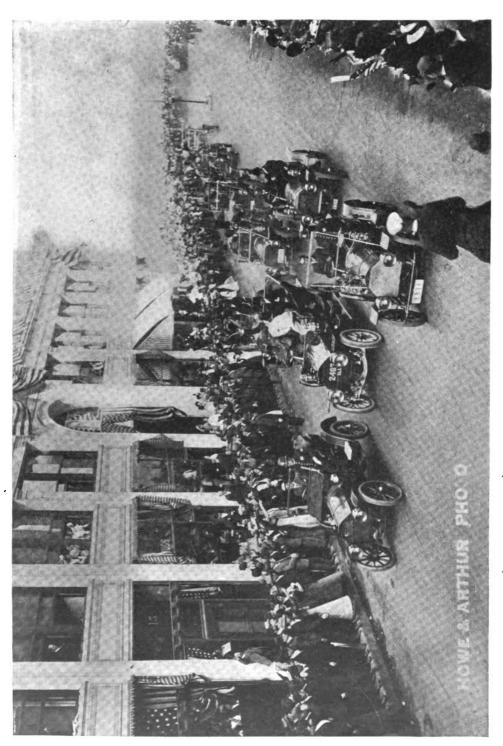
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THE AUTOMBILE USERS' WEEKLY

Vol. XVIII.

NEW YORK, SEPTEMBER 25, 1909.

No. 25.

TOPICS

Maryland has been studying the automobile question and endeavoring to frame a motor vehicle law which would not have

for its sole purpose the harassing and annoying of users of such vehicles. To bring about a better state of affairs, Governor Crothers some little time ago, appointed a commission to make a study of the subject. The commission has now finished its labors, the result being seen in a measure which is ready to be submitted to the Legislature for action. In this bill there are two cardinal features. One is that motorists are to be held responsible for their driving, and if accidents occur through recklessness, even if the speed law is not being violated, they are to be regarded as accountable. The other feature is the frank recognition of the fact that the present method of providing one speed for the open country and another for towns and suburban districts is unsatisfactory. In the bill the speed limit is placed at 25 miles in the open country. From that it is reduced, for more closely popuated centers, to fifteen miles an hour. The law provides, however, that the chauffeur must be careful.

The measure has much to commend it. Many persons who have made a careful study of the subject are of the opinion that the fixing of an arbitrary speed limit is wrong and unworkable. They hold that the "reasonable and proper" clause covers the grounds completely, and if properly enforced will put an end to the abuses concerning which so much complaint is made. But the unwillingness of the general public to make such an admission is well known, and the difficulty of overcoming their opposition is great and well nigh insurmountable. This being so, the next best step is the fixing of the arbitrary speed limits at a reasonable figure. To permit a hamlet containing not more than half a dozen houses, and these strung out for the better part of a mile, to limit the speed of automobiles to six or eight miles an hour is so absurd that it would be ludicrous, if it were not a very serious matter. As an alternative to this, the fixing of speed at fifteen miles an hour in the more thickly settled places, as is done by the proposed Maryland law, is worthy of praise. Fifteen miles an hour is plenty slow

enough, for such places, and to restrict the speed to one-half of this is simply to make it imperative that every vehicle owner shall become a law breaker. The reckless driver does not in the least mind becoming a law-breaker, but the man who is hit hard is a decent driver who always has consideration for the rights and privileges of other users of the road. To make him an habitual law-breaker also, is simply to put it in the power of local officials to graft on him. Where the temptation exists some officials are sure to succumb. When they do, motorists suffer.

A widely-heralded transcontinental "race" was halted abruptly by a fatality which occurred just after the start. In the absence of positive information as to the cause of the accident, it would be going too far to assign it to the craze for speeding, but it is not too much to say that this probably had something to do with it. The very announcement of such road races is apt to have the same effect upon the public as the flaunting of a red flag before a bull. It is one thing to violate the letter of an unenforceable law and quite another to set out deliberately to break all speed records.

Dwelling upon the appreciation of land, due to the building and maintenance of good roads, Governor Fort, of New Jersey, spoke the other day of farm land that had jumped from \$50 to \$200 an acre. An increase of this kind would pay for a great many miles of new roads.

Victims of joy riding chauffeurs will be interested, and likewise somewhat discouraged, at the outcome of a suit brought before a Jersey justice of peace. It appears that a motorist caught his chauffeur red-handed and discharged him for joy-riding. Thereupon the offender brought suit to recover two weeks' wages. His former employer put in a counter suit to recover a specified sum for the unauthorized use of the automobile and for damages inflicted upon it. A jury of twelve good men and true found for the joy-rider in full.

It is a demonstratable assertion that the motorist of to-day receives more consideration from non-motorists than at any time since the early days when he was looked upon both as a curiosity and a rarity. Occasionally, even now, the road hog will be encountered—the man who plants himself and his vehicle in the middle of the road like a modern Colossus of Rhodes, with the difference that he expects other users to pass him on the side; or another road user, who has it "in" for the motorist, will resort to every possible means of annoyance. But such cases as these are the exception rather than the rule. teamster is tolerant if not cordial, and he is quite willing to act toward the motorist in precisely the same manner that he would toward the driver of a horsedrawn vehicle. The hostility that was so noticeable a few years ago is now almost a thing of the past. Even the motormen of trolley cars, to cite a totally different case, appear to recognize in the motorist a companion or fellow; and he will sometimes even go to the length of shutting off his powerful headlight in order not to dazzle the motorist. But if we are ever in danger of supposing that all opposition has disappeared we are apt at any time to meet the real road hog the man who will crowd you into the ditch when you endeavor to pass, or oblige you to travel at a snail's pace when you have the ill-fortune to overtake him.

Curtiss is Welcomed on His Return to America

The return of Glenn H. Curtiss to his native land was vastly different from his departure a few weeks earlier. Then he carried with him hopes; now he brings back realization of all that could have been hoped, having proved the hero of the big European aviation meetings held this summer. It was fitting, therefore, that he should be heartily welcomed, and arrangements to do so were completed before he reached New York.

When the Kaiser Wilhelm II., carrying the victorious aviator, arrived off New York on September 21, a number of aeronautical enthusiasts went down New York Bay to welcome him home. To look at Curtiss one would not think that the slim, smooth-faced man whose appearance was the most unassuming, was the same person who but a week before had defeated Europe's most daring aviators.

Mrs. Curtiss, who had not seen her husband since he left for Rheims, was one of the first to congratulate him upon his victory at Rheims and Brescia when he arrived at the dock in Hoboken.

After having his baggage attended to, Mr. and Mrs. Curtiss started for the Hotel Astor. Later in the day, after a conference with W. J. Hammer, secretary of the Aeronautic Committee of the Hudson-Fulton Celebration, Curtiss

signed a contract to fly during the celebration next week.

On Wednesday Mr. Curtiss was the guest of honor at a luncheon given by the Aero Club of America, at the Lawyers' Club. Aviation enthusiasts from all over the country were present and witnessed the presentation of a gold medal to Curtiss from the Aero Club of America.

In speaking about his success at Rheims and Brescia, the only American representative at these meets said:

"France is certainly aeroplane crazy. I learned a great deal about flying while abroad and would not have missed the Rheims meeting for a good deal. There were altogether about 800 flights made there, with sometimes five or six machines in the air at once. Really, my most important competitors for speed were Latham and Bleriot. Bleriot changed his engine from a 50 to 80 hp. because he got wind of the fact that I was going to use a 50 hp. in my machine.

"I am going to stick to the biplane, which is altogether a better machine, to my mind, than the monoplane. With the monoplane, the propeller is usually in front, and that is where the loss is. In France, at first, they did not seem to think that we had a good machine, and were surprised to see such a fine-looking flyer."

Wright and Curtiss to Fly in New York Next Week

As one of the features of the Hudson-Fulton celebration, which New York is preparing to make eclipse anything of the kind ever held, there will be afforded the visitors and residents an opportunity to witness flights by such famous aviators as Wilbur Wright and Glenn H. Curtiss. Both men are here now and ready for the ascensions which they are to make. Curtiss returned this week

from abroad, where he won nearly all of the principle prizes offered at the aviation meets at Rheims, France, and Brescia, Italy. By winning the James Gordon Bennett trophy at the French meet Curtiss became the champion aviator of the world. Wilbur Wright has established many records for flight.

Wright and Curtiss arrived in New York during the past week, and are scheduled to start making trial flights Saturday, September 25. It cannot be said when the official flights will be held, as that depends on the condition of the weather. The Aviation Committee of the Hudson-Fulton celebration, of which W. J. Hammer is secretary, has arranged a number of signal flags, which will be placed at the top of several of the high buildings, announcing the flights.

A white flag with a red center will indicate that the weather is favorable, and a flight will probably be made in the afternoon; white over red, flight will probably take place within an hour; red over white, flight will take place within fifteen minutes; black, with white center, weather unfavorable, no flight, while red over white over black, means that a flight is in progress.

All of the flights will start from Governor's Island, and the probable course will be up the Hudson River to Grant's Tomb. According to a clause in Curtiss's contract he will be required to make a continuous flight from Governor's Island to Grant's Tomb and return. Wilbur Wright will be expected to make a continuous flight of one hour, or a distance of ten miles.

When it was announced that flights would be made near New York, considerable discussion arose as to whether the aviators would soar over the tall buildings or follow the course of the Hudson River. Curtiss declared that it would be too dangerous, but Wright said he could control his biplane so perfectly that he would have no difficulty flying above New York proper.

Both aviators have attached floats to their machines as a precaution in case an accident occurs and their machines fall into the river. Wright also has a canoe placed between the two planes of his machine.

Besides the aeroplane flights, several balloon contests will be held, and in all, aeronautic enthusiasts expect New York to be the scene of one of the most sensational aviation meets ever held.

Made Formal Application for Permission to Hold Cup Race

Formal application was made on Tuesday, September 21, by the Motor Cups Holding Company—the recently formed organization that will hold future Vanderbilt and Grand Prize races—to the Nassau County Board of Supervisors for permission to hold the Vanderbilt Cup race over certain highways in the county on Saturday, October 30, between the hours of 5 A. M. and 5 P. M. The petition reads in part as follows:

"The roads which it is desired to use for this contest, known as the William K. Vanderbilt, Jr., Cup races, and the Motor Parkway Sweepstakes, are: (a) Massapequa Road, beginning at the point of intersection of said road with the Long Island Motor Parkway to its intersection with the Old Country Road

in the village of Hicksville; (b) Old Country Road, from its intersection with the Massapequa Road in the village of Hickville to its intersection with a certain road known as Old Westbury Road or Ellison Lane."

In the petition requests are also made for the right to use the highways named between the hours of daylight and 3 o'clock in the morning from October 14 to the day of the race, for practice and trial purposes. It is not expected that any difficulty will be experienced in securing the use of the highways, as the sentiment in favor of the race is very strong in the county. The supervisors will, however, insist upon the greatest protection being given the public during the trial days, as well as on the day of the race.

Ruess Wins Mt. Baldy Race

William Ruess driving a Pope-Hartford, won the fourth annual Los Angeles-Mount Baldy road race in record time, on Monday, September 20. Ruess negotiated the 93.6-mile course, which starts near Los Angeles, Cal., and is one of the most dangerous in the country, in 3 hours and 4 seconds, which was 37 minutes 56 seconds faster than the previous record. The Apperson, driven by Harris Hanshue, the winner of the recent Santa Monica, Cal., road race, finished second in 3.24.39, while the other starter in the race, the White Steamer driven by Gus Seyfried, collided with a telegraph pole early in the race. As a result of the accident Frank Forbes, the mecanicien suffered a broken arm and internal injuries, and the car was eliminated from the race.

The prize Ruess received for winning the race was a pot of \$1,500, the entrants each having posted \$500. This was the first time in the history of the race that more than two cars have been entered. The first twenty-eight miles was over fairly good country roads, after which came the famous Newhall grade, 28 per cent. at the top. After another stretch of fifteen miles of good country roads the Soledad Canon was reached. Here the drivers were required to go over miles and miles of winding sandy roads which required a continual shifting of gears. Acton the cars went to Palmdale, on the edge of the Mojave Desert. desert road for 21 miles to the foot of North Baldy Mountain is badly cut up and sandy in places. The next nine miles is up a mountain in which there is a raise of 3,000 feet to the finish, which was thirty miles from the nearest railroad.

DePalma Shines at Grand Rapids

Ralph De Palma was the star of the races at the Comstock Park track at Grand Rapids, Mich., on Friday, September 17, the last day of the West Michigan State Fair. This was the first time in the history of the fair that motor car races were included in the program, but if the performances of De Palma count for anything, it won't be the last. The record-breaking Brooklyn driver and his Fiat Cyclone reduced the record he established for twenty-five miles on the Readville track (Boston), on June 17 this year, by 35 2-5 seconds. Palma negotiated the distance in 22 minutes 59 3-5 seconds.

The track was in perfect condition and several of the circuits were reeled off in 53 seconds. The record for the track is fifty-seven seconds, made last month by Chevrolet in a Buick. After completing the twenty-five miles De Palma said he regretted he had not gone after the fifty-mile record, as his car was working perfectly. Walter Christie found it impossible to have his car work properly, while H. J. Kilpatrick's Hotchkiss had a broken crank-shaft. Christie and Kirkpatrick had to withdraw from the ten-mile handicap, leaving De Palma to finish with ease, Dean's Boyden and Van Denberg's Buick giving him little trouble.

In the five-mile amateur event Dean with his Boyden, Van Denberg in a Buick and Fassett in a Reo following in respective order. Spordel, driving an Indian motorcycle won the three events in his class without any difficulty.

The novelty of the automobile and motorcycle races resulted in an unusually large crowd attending the fair in all sorts of vehicles.

Syracuse Meeting Graced by the Vice-President

A new record for attendance at an automobile event in Central New York was established at the third annual track meet under the joint auspices of the Automobile Club of Syracuse and the Syracuse Automobile Dealers' Association, when more than 20,000 persons witnessed the races at the State Fair Grounds, in Syracuse, on Saturday, September 18. The event was the most successful of its kind held in that section of the country, and was graced by the presence of Vice-President James Sherman, who is an enthusiastic motorist.

Long before the time scheduled for the start of the races the promoters began to wonder where they were going to put the crowd that flowed toward the Grand Circuit course. Never in the history of the city has such a mass of people been gathered in the same area. They came in all sorts of vehicles, from the antiquated one-horse "shay" to the modern motor vehicle. It is estimated that more than 1,200 cars were gathered around the course. Fred Wagner, who acted as starter, said it was the largest gathering of automobiles he ever saw at a meet, with the exception of one recently held at St. Paul, Minn.

Owing to the crowds that kept continually swarming into the grounds, the start was postponed until 2:30 o'clock. Shortly before that time Vice-President Sherman arrived and was enthusiastically received by the crowd that then jammed the course. Starter Wagner had things in order, and at the time scheduled the first event was started.

The track was in perfect condition but Oldfield's attempt to lower the mile track record of 50 4-5 seconds, made several weeks ago by De Palma at St. Paul, was fruitless. The best he could do was 53 2-5 seconds, made on the second trial. Oldfield was by far the most popular driver at the races and the greeting he received from the spectators was second only to that given Vice-President Sherman.

The day's sport was commenced with a five-mile motorcycle race for single cylinder machines. After a very close race, Stander, driving an Indian, flashed across the line first in 5.27 2-5. Quite a lot of interest was taken in the next exent, a five-mile race for gasolene cars selling for under \$1,251, owing to the fact that Charles G. Hanna, a local amateur, in a stripped Hudson led the two Maxwells from start to finish. The time was 5.49 2-5.

Three cars were entered in the first race of the day in which big cars participated—the five-mile free-for-all. They were the Benz racer driven by Barney Oldfield; the Peerless "Red Devil," with C. H. Bowers driving, and a 120 hp. Thomas piloted by James G. Barclay, a well-known amateur driver of Buffalo. The race started beautifully with the cars on even terms. On the first circuit Barclay had to retire with one of his tires in a bad condition. The other cars raced around the track with a few feet at the most separating them, until the last turn into the home stretch, when Oldfield drew away from the bright-colored car drive n by Bowers. The time for the five miles was 5.15 2-5.

In the second heat of this race, Barclay was not a contender and Oldfield repeated his performance of the preceding heat—winning out in the last eighth-mile in 5.06 3-5. In the ten mile race for single cylinder motorcycles for the championship of Central New York, William Shield, of Syracuse, on an Excelsior, outrode the large field that started and finished in 11.42 1-5.

Event No. 5 was an amateur race of five miles for gasolene stock cars, and of the three starters, James Barclay in his Thomas was the most successful and crossed the line in the lead. Arthur See in a Maxwell and Thomas Costello also in a Maxwell, were the other starters, but Barclay left them behind at the third mile, and was never headed. His time was 5.55 1-5.

Barbey Oldfield was in front again in the next event, a ten-mile race for gasolene stock cars. This time Oldfield was driving a 50 hp. Knox entered by C. After Oldfield's unsuccessful attempt to break the one mile record for one-mile circular tracks, the last event on the program was started. Owing to the lateness of the hour this was cut down from fifty to twenty-five miles. Oldfield, again driving the Knox, drove around the track in a sensational manner and several of the laps were negotiated in less than a minute. At the finish he had a lead of over a lap on the



WATCHING THE RACES FROM THE PARKING SPACE

Arthur Benjamin, and after the seventh mile he had no difficulty keeping his car in the lead. Bowers did not have his Peerless "Red Devil" working properly and had to be content to trail in after See and Costello, in Maxwells, had finished. Oldfield's time was 10.57 3-5.

An Australian pursuit race for motorcycles proved a novel and interesting event. Thirteen riders started, but at the end of the twentieth mile, Shields and A. S. Noonan were the only two on the track. Noonan overhauled Shields and won the race, which was limited to twenty-five miles. second car, the "Red Devil." The time was 25.40.

Encouraged by the success of the meet, C. Arthur Benjamin, the chairman of the meet, declared that steps would be taken immediately for the holding of a meet next year at which all prominent cars and drivers would participate.

Syractise motorists declare that the State Fair track is one of the safest and fastest in the country, and say this was proven by not a single accident occurring to mar Saturday's meet.

The summaries:

Event No. 1.—Five miles, for single cylinder motor cycles—Won by Indian (Stander); second, Indian (Noonan). Time, 5 minutes 27 2-5 seconds.

Event No. 2.—Five miles for gasolene stock cars selling for \$1,250 and under—Won by Hudson (Hanna); second, Maxwell (Costello). Time, 5 minutes 49 2-5 seconds.

Event No. 3.—Five miles, free-for-all—Won by Benz (Oldfield); second, Peerless (Bowers). Time, 5 minutes 63-5 seconds.

Event No. 4.—Ten miles, for single cylinder motorcycles, championship of New York—Won by Excelsior (Shields); second, Merkle (Gillespie). Time, II minutes 42 I-5 seconds.

Event No. 5.—Five miles for gasolene stock cars; amateur drivers only—Won by Thomas (Barclay); second, Maxwell (Costello). Time, 5 minutes 55 1-5 seconds.

Event No. 6.—Ten miles for gasolene stock cars — Won by Knox (Oldfield); second, Maxwell (Costello). Time, 10 minutse 57 3-5 seconds.

Event No. 7.—Australian pursult race for motorcycles—Won by Excelsior (Shields).

Event No. 8.—One mile time trials for gasolene cars—Won by Benz (Oldfield). Time, 53 2-5 seconds.

Event No. 9.—Fifty miles for gasolene stock cars—Stopped at twenty-five miles. Benz (Oldfield), leading. Time, 25 minutes 40 seconds.

The Modern Method of Escorting a President

CHICAGO, Ill., Sept. 18.—Perhaps nothing could more forcibly bring home to the general public the fact that the horseless age is really here than the recent parade on the occasion of the visit of President Taft.

It was an automobile parade and the route covered a great many miles of the city's boulevard and park systems.

It has usually been the rule in entertaining high officials of state to have a parade of carriages preceded by officers on horseback and followed by military and civic bodies on foot or in more carriages. This sort of parade was more picturesque than practical. It moved slowly, it blocked traffic on the principal streets for hours at a time, and it kept the populace standing first on one foot and then on the other until they were completely tired out. up-to-date committee in charge of Mr. Taft's visit to Chicago thought of a way to show him the whole town. They met him at the station with automobiles and he was whisked through the city over a route that had been previously announced.

Instead of an open carriage drawn by four prancing steeds, the President rode in a big Thomas propelled by six pul-

sating cylinders. Instead of the mounted police guard of honor, four Chalmers-Detroit "Forty" roadsters, each carrying, beside the driver, a member of the police or government secret service, acted in this protective and honorary capacity. The four Chalmers cars surrounded the President's car on his entire journey through the city, insuring the right of way, keeping crowds and vehicles at a safe distance.

New Haven Motorists Plan Gymkhana

The Automobile Club of New Haven (Conn.) is making preparations for the holding of its second gymkhana at the Elm City Driving Park some time during the next two weeks. Although no definite date has been decided upon, this year's event is to be held a month earlier than in 1908, to avoid cold weather, and the program is to be a far more interesting one. Fredson E. Bowers, W. T. Dill and W. A. Maynard are in charge of the arrangements.

The Belgium Petit Bleu has offered a prize of \$5,000 to the first aviator who flies from the Etterbeck military parade grounds at Brussels to the grounds of the Palace Hotel at Ostend, 72 miles.

Motor Boat Races on the Hudson River

The annual National Motor Boat Carnival on the Hudson River, under the joint auspices of the New York Motor Boat Club and the Motor Club of America, came to a conclusion on Saturday, September 18, with three long-distance races. During the carnival the New York Motor Boat Club house and floats and the river front were crowded with many enthusiastic spectators. The first class, which was open to racing boats, started at 9:40 o'clock, and was from New York to Poughkeepsie and return, a distance of 115 nautical miles. It was a close contest, but Joseph H. Hoadley's Den, the victor of a year ago, captured the cup another season, just beating the Gunfire II., a new boat, on corrected time by 7 minutes 21 seconds. Gunfire led all the way. She was the scratch contestant, and on elapsed time led the Den by 8 minutes 54 seconds.

The other two races were for cruisers of the under 40-foot-and-over type. The latter classes started off together at 9:45 o'clock, the course being from New York to Peekskill and return, a distance of 60 nautical miles. The largest fleet started in the cruising boat class under 40 feet. XL, although making the best elapsed time, was disqualified for not crossing the starting line properly. S. W. Granbery's Irene II. added another trophy to her list by beating the Elmo II. by over 15 minutes, corrected time.

In the class for cruising boats over 60 feet, six boats started. Ilys, one of this year's Bermuda racers, won the prize, beating F. C. Haven's Avis by 15 minutes 28 seconds, corrected time. J. H. Hoadley's Alabama was third.

The Dixie II., piloted by S. B. Pierce, made remarkable time when she broke her own record on Friday, the third day of the carnival. She covered the thirty-

mile course in 55 minutes 50 seconds, which is at the rate of a mile in 1 minute 50 seconds, or at a total average of 32.23 nautical, or 37.064 statute miles an hour. Her previous record, which was made on August 4, 1905, was 31.09 nautical and 35.08 statute miles an hour.

The course was the same triangular one she raced over on the second and third day of the meet, part of the trip being against the tide and part with it. The Dixie II. wins the international championship trophy, having won all three races.

The Interstate trophy was won by W. J. Graham's Rochester, with 83 points, beating the Den by 3 minutes 54 seconds, and the Avis won in the cruising class with 9 points to her credit, the Alabama being second. The winner of the "G" cruising class, was the Telequah with a total of 18 points, the Imp being second. The Ilys had a walkover in the cabin launch class.

On the second day of the carnival, Thursday, the races were more closely contested than on the opening day. Of the sixteen starters in the events all but three finished. These were H. A. Darlington's Hada, Jr.; A. M. Probst's Racine, and R. E. Vanderhoff's Whip. All three broke down after completing the second round of the thirty-mile course. E. J. Schroeder's Dixie II., the only starter in the high speed class for larger boats, made fast time over the course, covering the thirty miles at an average of 29.03 knots an hour.

Although George W. Baker, Jr.'s. Vim made the fastest time in the race for Class A high-speed boats, W. J. Graham's Rochester was the winner on time allowance by the close margin of two seconds. The Vim's time was I hour 27 minutes 24 seconds. The winners in the other classes were the Avis, the Ilys and the Telequah.

Some of the Charms of a Long Island Run

The New York Automobile Trade Association's second annual three-days' "around Long Island" tour, on September 28, 29 and 30, promises to eclipse in many ways their initial run of last year to Montauk Point, and return. Walter R. Lee, Secretary of the Trade Association, who has returned from a survey trip of the route, states that the itinerary of this year's run will require a full three days to complete, which is an addition of one day over the run of last year. For picturesque scenes which are ever changing, and of continual interest, no matter what section visited, Long Island, favorably known as the "Land of Pastime," with its thousands of miles of perfect roadways, offers a stage setting for a contest of this character that would be hard to equal in any other place in this country.

The topography of the northern shore of Long Island is wholly different from that of the south side—wooded hills, deep valleys, with little villages nestling at the bottom of them, bold and precipitous bluffs fronting on Long Isl-

and Sound, with picturesque indentations of bays and inlets, are the characteristics of this section, truly a wonderful region in which the attractions of both water and woodland are intermingled.

It is through this charming locality that the first day's run of the "Around Long Island" tour will travel. From an early morning start at Columbus Circle, New York City, the motor caravan will leave Manhattan Island by way of the Queensboro Bridge to Hillside Avenue, made famous as a course for automobile speed contest. Leaving Hillside Avenue, the cars take the Jericho Turnpike, and on reaching Krug's Corners, the good old days of the Vanderbilt Cup Race will undoubtedly be recalled by the tourists.

Passing through Jericho and Woodbury, the tour will lead to Smithtown, 43 miles from New York. Here will be located the first intermediate checking station. The participants should have no trouble in adhering to schedule time up to this stage of the journey, as the



SKIRTING THE SHORES OF PECONIC BAY



SHINNICOCK HILL ROAD, GOING WEST

roads are in perfect condition, and only serious mechanical trouble could affect them. Leaving Smithtown, the cars will be headed almost straight for Riverhead. The road selected by the pathfinding party is a new one recently opened and runs through a vast expanse of pine forests somewhat resembling those in the Lakewood region, where the

air is sweet from the fragrance of the pines.

Arriving at Riverhead, the noon control, the tourists will be regaled with a typical Long Island dinner by mine host Corwin, of the Long Island House. After lunch, the cars will leave Riverhead for Mattituck over a portion of the course of the Long Island Stock Car



THE GOVERNMENT STATION AT AMAGANSETT

Derby, from Mattituck en route for Greenport, the tourists will pass through some very interesting towns located near the shores of Peconic Bay, principal among them being Jamesport, Cutchogue, Peconic and Southold. At Greenport the tourists will have a splendid view of Shelter Island on the land-locked waters between Gardners Bay and Peconic Bay, famed as one of the best watering places on the Atlantic Coast.

Leaving the beauties of the Peconic Bay region, the cars will pass through the quaint and pretty villages of East Marion and Orient, and continue on to Orient Point, the extreme end of Long Island's North Shore. A short distance off the point can be seen the Plum Island Lighthouse standing boldly forth in the midst of the tide rip of Plum Gut, and just beyond, rising sheer from the water, is Plum Island.

The Orient Point Inn will cater to the tourists in their over-night sojourn, and while the ladies of the party are arranging their toilette for the evening entertainments, the fishermen of the party will be taken in boats by the natives for a fishing trip in Plum Gut for blue fish. After a good, old-fashioned Long Island dinner has been disposed of. dacing and card games will be indulged in as a wind-up of a pleasant day.

Leaving Orient Point early on the morning of the second day, the cars will retrace their trail to Mattituck, at which point they enter the course of the Long Island Stock Car Derby and continue to the official grand stand, where the cars will be parked, and the tourists accommodated with seats in the stand or remain in the cars, if preferred. A tire and rim competition has been arranged to take place in front of the grand stand. all of the contesting makes will be demonstrated to show the practicability of the idea and the speed with which the up-to-date quick-detachable, or de-

mountable rims, and shoes may be removed after hard usage, such as a tour of this kind can subject them to.

After luncheon, which will be served in the grand stand, the tour will continue to Riverhead, and cut across country to the south shore by way of Flanders and Good Ground. Passing through the picturesque Shinnecock Hills, and skirting the shores of Shinnecock Bay, the tourists will soon reach Southampton, through which they will pass en route for Amagansett, by way of Bridge Hampton and East Hampton. Amagansett is at the extreme end of all passable roads on Long Island, so the tourists will appreciate a detour that has been planned in their interest, which affords a fine view of the coast, and the vast area of sand dunes laying back from the ocean.

A run of a few miles along the coast will bring the cars back on the main road, which they will traverse through the beautiful Hampton townships to South Hampton, where the tourists will stop for the night at the Irving, where a royal feast, for which Manager Terry is justly famous, will await the hungry tourists. After this strenuous day's run, everybody will most likely be very tired, so that all will appreciate the comforts of the cosy Irving.

Leaving South Hampton on the morning of the third day, a long run will be made through the numerous towns along the South Shore, principal among them being Quogue, West Hampton, Center Moriches, Moriches, Brookhaven, Belleport, Patchogue and Blue Point. At Blue Point, a checking station will be situated and the tourists greeted by Captain Bill Graham, the picturesque proprietir of "Ye Anchorage Inn." From here the tour will wend its way along the Merrick Road through Islip, Bayshore, Babylon, Amityville, Massepequa, Freeport, Bald-



ORIENT POINT, THE END OF THE NORTH SHORE ROAD

win, and Rockville Center, where the cars will make a detour for Long Beach, the noon control. Luncheon will be served at the Hotel Nassau, and ample opportunity afforded all to view the wonderful improvements that are progressing at this famous resort, which bids fair to rival Atlantic City. Leaving Long Beach, and arriving at Rockville Center, the cars will leave the Merrick Road, and cut across country for Hempstead, there taking the famous South Hempstead Turnpike back to Hillside Avenue, thence to the Queens-

boro Bridge and cross to New York to the club house of the Automobile Club of America, where the tour will end.

Approximately 335 miles will be covered on this tour, and while the road conditions are almost perfect, a schedule will be inaugurated that will have a tendency to keep excitement continually on tap. The rules are of a comprehensive, and liberal nature, and should appeal strongly to private owners who are now beginning to realize the possibilities of successful competition in contests of this character.

Good Entry List for French Trials

Fifty-seven vehicles have been entered in the French industrial vehicle trials, which are to be held by the Automobile Club of France, October 15 to November 15. They include teams of five cars from the De Dion and Saurer firms, teams of four from Lorraine-Dietrich, Berliet, Clement, Panhard-Levassor, Aries, Desmarais, Peugeot, Delaugere-Clayette; three each representing the Krieger and Malicet and Blin makes; two each from Vinot, Schneider, Cohendet and Societe de Poids Lourds, and one from Berna Commer-

cial Motors, Ltd. Of these, eight are entered to compete only in the military trial, seventeen only for the A. C. F. part of the trial, while the remaining thirty-two will take part in both.

Orville Wright Breaks Record for Height Orville Wright, in the presence of the Empress of Germany, at Berlin, on September 17, broke the world's record for high flights. He attained a height of 233 meters (765 feet). The best previous record was 512 feet, made by

Herbert Latham.

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Distinguished Good Roads Workers Come East

Distinguished railroad men, headed by B. F. Yoakum, chairman of the Executive Board of the Rock Island Railway, are behind a good roads movement which has been launched in the Southwest. As a step in the plan to bring about concerted action in the work for better roads, a party of representative agriculturalists of the Trans-Mississippi States arrived in Washington, D. C., early this week, prepared to make a tour of inspection of the roads of the Eastern States. The party came East at the invitation of Mr. Yoakum, and consists of G. A. Cole and M. F. Dickinson, president and secretary of the Farmers' Union of Arkansas; J. F. Harbert and J. N. Deloach, president and secretary of the Farmers' Union of Louisiana; Freeman R. Smith, vicepresident of the Farmers' Union of Oklahoma; J. P. Connors, president of the Oklahoma State Board of Agriculture; Clark Hudson, representative of the Oklahoma Good Roads Association; Samuel J. Hampton, editor of the Oakland City Union-Advociat, and Road Commissioner J. W. Thurman, of Texas.

Mr. Yoakum's invitation was extended in his recent speech before the Fardmers' Union of Oklahoma, at Shawnee, in which he said:

"I extend an invitation to the president of the Farmers' Union and one other from each of the States of Oklahoma, Texas, Louisiana and Arkansas, comprising the Southwestern States, to make a trip as my guests for the study of public road building through the older States that have given the question much thought and consideration."

After having a talk with Secretary Wilson of the Department of Agriculture, in which roads and soils were discussed freely, the visitors were taken for an automobile trip through the Arlington National Cemetery and Fort Myer. Later they continued their trip through Rock Creek Park to Silver Springs, Md., where Chief of Highways Crosby, of Maryland, showed some roadway improvements in his

From Washington it was panned to meet Governor Fort of New Jersey, who, with the Adjutant General of the State and the State engineer, will accompany them on a two-days' trip over the roads of that State. They will then go to Laconia, N. H., spending a day in inspecting the highways of the Granite State. They will spend Saturday and Sunday in Massachusetts. Monday, September 27, will be spent in Rhode Island and Connecticut, and they will arrive in New York September 28, where they will remain until the last of the week.

They will inspect the new road work in the Bronx and on Long Island, and will attend many of the functions of the Hudson-Fulton Celebration. They will start for St. Louis on October 1, and there the party will disperse.

New Use for Automobile Goggles

The Spanish military authorities have found a new use for automobile goggles. It is reported that, owing to the tremendous heat and sandstorms in the Riff district of Morocco, arrangements are being made in Madrid to send about 30.000 pairs of goggles for the use of the Spanish troops.

French Aviator Killed

Capt. Louis Ferdinand Ferber, a French aviator, was crushed to death on September 22, when his Voisin aeroplane was wrecked in making a descent after a successful test flight at the aviation meet at Boulogne, France.

Mitchell Ranger Reaches San Francisco

A remarkable demonstration of the capabilities of the automobile for dispatch carrying purposes was made when the Mitchell Ranger, the first transcontinental war car ever sent from the Atlantic to the Pacific on dispach duty, rolled into the Presidio grounds, at San Francisco, and Private M. E. Parrett, N. G. N. Y., delivered to Post Adjutant Wheeler, in the absence of Major General John F. Weston, U. S. A., who was confined to the hospital with illness, the sealed packet of messages entrusted to him in New York on August 19, by Major General Wood, U. S. A.

Driver Frank Zirbies, known in national racing circles for his daring work in twenty-four hour races, and Lieutenant B. B. Rosenthal, of the Spanish-American War Veteran Corps, who accompanied Private Parrott on the journey, sharing with him some of the most remarkable automobiling experience ever known, after the military features of the welcome and the reception at the government post, quickly sought a place to sleep.

Many days of battling with unprecedented rain and climatic conditions in Wyoming, following a period of sunbaked touring in Nebraska, left their imprint on the khaki-clad tourists. Not even the speeding through the desert country in avoiding the Great Salt Lake, or dashing through the sandy and sage brush districts of Nevada to gain the pleasure of descending the Sierra slopes into the Sacramento Valley, could make up for fatigue and privations endured in the foothills and canyons of Wyoming.

"From New York to Chicago our expedition was a pleasure ride without a bit of night driving." said Lieutenant Rosenthal when met by the government escort of Lieutenant W. H. Homer and a detail of soldiers at Stockton. "We made no effort to break our schedule but

arrived about fifty hours ahead of time. In western Illinois a delay was encountered due to sudden and almost torrential rainfall. In Iowa, the battle with lightning storms, floods and infamous gumbo clay of the clinging, sticky roads, was hard on the nerves. Yet the little Mitchell Ranger, first of the 1910 models to be turned out at the Racine plant under the personal direction of Designer Bate, conquered the almost impassable highways, despite the fact that the four-cylinder motor had to perform the exceedingly severe task of pulling a car that weighed more than 4,000 pounds, loaded as it was with human freight, baggage and war paraphernalia-tents, ropes, blocks, and tackle, guns, etc.

"The sun of the Nebraska portion of the trip was sufficient to bake us to a crisp. The rains approaching Cheyenne, where a detachment of soldiers and officers from Fort Russell greeted us, almost isolated Laramie, Rock Springs, Fort Steele, Thayer Junction—there's where automobile 'Death Valley' is found—Granger and Evanston from the remainder of the world. When not in mud up to the hubs, we were almost swimming in the floods. Cold weather—it was almost zero at Evanston—gave us the extremely novel sensation of a heavy snow storm.

"But the terrors of Wyoming were forgotten in Utah. It was back to the merry spin through the Great Salt Lake district and traversing Nevada to the Sierras. From the mountains where the little Ranger car took the steep grades and climbed to the altitude of more than 7,000 feet, working like a perfect bit of mechanism, down the California slopes to Stockton, was ample remuneration for the weary expedition tourists, however. The escort of soldiery at Stockton looked good to us.

"But after the panoply of war had

been thrust into the background at San Francisco and the throngs of spectators in the streets had concluded their welcome to the car bearing the simple legend that we were carrying war dispatches from Major General Leonard Wood, U. S. A., in New York, to Major General John F. Weston, U. S. A., in San Francisco, it struck me that the United States officials at the Presidio

did a lot of talking about field notes, forced marches, mountain climbing and such things. We accomplished our purpose—satisfied General Wood and his associates of the army that the motor car, properly built and intelligently piloted and handled, has marked an epoch in military operations involving transcontinental distances such as we have in this county."

Chicago A. C. Wins From Athletic Rivals

Revenge for the defeat suffered in 1908 was obtained last week by the Chicago Automobile Club, when that organization won the second annual inter-club reliability contest from the Chicago Athletic Association. Consequently the inter-club trophy will decorate the halls of the automobile club for the next twelve months.

The contest was held on Thursday, September 16, over a 150-mile course which led mostly through Indiana. The route included Dolton, Oak Glen, Dyer, Schererville, Crown Point, Cedar Lake, Lowell, Crown Point again, Merrillsville, Deep River, Valparaiso, Wheeler, Hobart and Highlands. The motoring organization won by a score of 115 to 138.46 points.

The affair was exciting and interesting throughout, and the decision went to the automobile club because its total penalization was lower than that of the Cherry Circle. Although the C. A. C. had three out of ten men marked, its rivals had eleven out of thirteen with

perfect scores. The penalizations of the Athletic association were given for work done by Laughlin, on his car at Cedar Lake, while Knisely was marked for motor stops. On the winning side Mudd was demerited for being late at the home control and for work on his car. Hyman had two motor stops while Robbins was late at Cedar Lake and was penalized five points.

The victory of the automobile club evens matters, as stated, for last year, when the match was run for the first time, and the Cherry Circle won hands down, the automobile club practically being put out through accidents to two of its cars early in the fray. The automobile club also won a trophy put up by the treasurer of the C.A.A., F. H. Rawson. The cup given by Mr. Rawson becomes the permanent property of the winner, not a perpetual challenge affair.

A finer day for the match could not have been wished for, and the roads were in perfect condition on the entire run of 150 miles.

Cornell Engineers to Test Road Materials

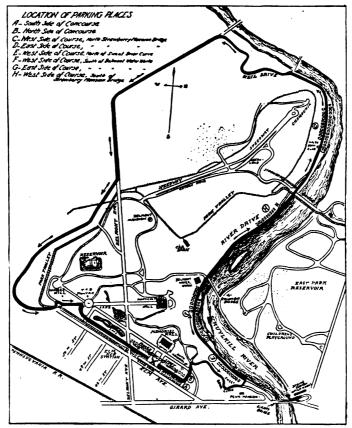
The engineering department of Cornell University has arranged with the U. S. Office of Public Roads to conduct a series of comparative tests of road-building materials. A road consisting of a number of different materials will be built, the one selected for this purpose being a continuation of the State

road at East Ithaca, N. Y. It will be constructed in sections of brick, concrete and bituminous macadam of different kinds.

Nearly a dozen manufacturers of bituminous macadam have decided to cooperate with the university authorities in this work.

Twenty-Car Limit is Done Away With

PHILADELPHIA, Sept. 21.—With nineteen cars aleady named as contestants, the Contest Committee of the Quaker City Motor Club announced to-day that the number of starters in the 200-mile stock chassis road race in Fairmount Park on October 9, will not be limited That there will be no dearth of noted drivers in the races was made evident by the recent addition of George Robertson and Barney Oldfield to the number of pilots who have been nominated by the entrants of machines. George Robertson will be at the wheel of the



COURSE AND LOCATION OF PARKING SPACES

to twenty, permission having been granted by Chairman Hower, of the Contest Board of the American Automobile Association, to extend the list of entries for the event. If more than twenty cars start in the race, it is planned to send them off in twos, to avoid lapping at the beginning of the circuit of the eight mile course.

90 hp. Simplex entered by the Simplex Automobile Company of New York, while Barney Oldfield will take charge of the 59.6 hp. Benz entered in his own name.

Among the drivers of national reputation who will be seen on the course are Herbert Lytle, in the 49.2 hp. Apperson, entered by the Philadelphia Automobile

Company; Ralph Mulford, in the 50 hp. Lozier, entered by the Lozier Motor Company; Willie Haupt, in the 70 hp. Thomas, entered by Louis J. Bergdoll; Louis J. Bergdoll, in a car of the same make and horsepower, entered by himself; Len Zengle, in the 60 hp. Chadwick, entered by the Chadwick Engineering Works; Lee Lorimer and Bert Dingley, each in a 40 hp. Chalmers-Detroit, entered by the Chalmers-Detroit Motor Company. Malin Leinau will guide the destinies of his own 60 hp. Acme; William Wallace, Jr., will

pilot C. A. Schroeder's 60 hp. Palmer-Singer; J. M. Betz, 3d, will drive his 90 hp. Simplex; Al Hall will be seen in his 70 hp. Welch; Charles Howard and Erwin Bergdoll will drive Benz entries, and John C. Coffey will be at the wheel of the 32.4 hp. Columbia, entered by the Columbia Motor Car Company. Drivers have not yet been named for the 40 hp. Kline Kar, entered by the B. C. K. Motor Car Company; a second Chadwick entered by the Chadwick Engineering Works, and the entry of W. C. Longstreth, with either an Alco or a Pullman.

Seattle 24-Hour Race Won by a Hudson

Nothing sensational occurred during the first automobile carnival at Seattle, Wash., from September 9 to 12. During the three days of the meet large crowds attended the events, except the twenty-four-hour race which started at 9 o'clock Friday night, September 10. Owing to the hour of starting not being generally known, only 200 spectators were on hand when the cars were sent away.

The carnival, which was under the auspices of the Alaska-Yukon-Pacific Exposition, opened with hill-climbing contests up Queen Anne Hill. The best time made over the course either by an automobile or motorcycle was registered by L. L. Teachout on a motorcycle, who went up the hill in 24 2-5 seconds. Henry Schwab driving M. Robert Guggenheim's Italia covered the course in 27 2-5, which was the fastest time made by an automobile, but as the time was not made in competition the honor of the fastest time went officially to a White car, which covered the distance in 27 4-5 seconds. The free-forall contest was won by an Allen-Kingston in 28 seconds flat.

The twenty-four hour race was start-

ed at 9 o'clock Friday night, with three cars competing. Theye were an Allen-Kingston, White Steamer and a Hudson. The last named won the event at 2 o'clock in the morning of September 12, finishing 57 laps ahead of the White Steamer. The Hudson covered 706 miles and the White 649. The A-K. which led by a large margin up to late in the contest was compelled to drop out at 6 o'clock Saturday evening with a broken transmission gear. Despite the fact that most of the running was done at night, not an accident marred the race.

The principal event of the afternoon was the fifty-mile race in which two cars participated. Charles Soules driving a Stearns had the faster car and finished in front of Cummings in an Acme in 59 minutes 28 seconds. On the last day of the carnival a Stearns was also returned a victor in the principal event of the day, the 100-mile race. In the five-mile match race between the White and the Allen-Kingston, both contestants in the twenty-four-hour race, the former was returned a winner by more than a quarter of a mile.

Twenty-five Cars Start in Munsey Run

The much-heralded Munsey Reliability Run, which is being promoted by a chain of newspapers in Washington, Baltimore and Philadelphia, was started from the National Capital on Tuesday, September 21. Of the thirty-seven entrants, twenty-five came to the starting line, and they were sent away on their approximately 1,500 miles journey, commencing at 7 o'clock in the morning, with Philadelphia as the first night stop. This is the first real big motoring event that has started from Washington, and motor enthusiasts were out in force to give the tourists a good send-off. The route leads through the principal cities of the East, including New York, Philadelphia, Boston, Albany, Baltimore, Hartford, Springfield and Atlantic City.

Promptly at 7 o'clock Chief Observer R. P. Covert and Harry E. Walls gave the word for the first car to start, and the Ford, driven by Charles E. Miller, crossed the line, and the big event, which will last eight days, including a two-day stop in Boston, the northern point of the route, was on. Twenty-five competitors, divided into six classes,

were in line, giving the run the widest representation of any similar enterprise held in the East. For various reasons the intervals between the cars were not always the same. In some cases it was one minute and in others two. In one instance it was as high as four, and that was between the American Simplex and the Renault.

The cars which left Washington were the following: Reo, Maxwell, Pullman, Washington, Pullman, Crawford, Maryland, Elmore, Pullman, Corbin, Marmon, Croxton-Keeton, American Simplex, Renault, Ford, Hupmobile, Washington, Chalmers-Detroit, Spoerer, Columbia, Croxton-Keeton, Winton, Selden and Matheson.

All along the route the tourists received an enthusiastic reception, but when Philadelphia, the first night control, was reached the excitement was intense. Several thousand persons were gathered around the control, and as each car came into view it received a round of applause. Considerable tire trouble was experienced, owing to the condition of the rough roads of Mary-



THE START FROM WASHINGTON

land and Pennsylvania, but none of the cars had difficulty keeping schedule.

The first car to arrive at the Quaker City was the big Renault, driven by L. L. Shaab. This car was the last to be sent away at Washington, but it soon passed the others, and led for some time before the night destination was reached. Close behind the Renault came the big Winton Six, with B. B. Tatham at the wheel.

When the observers' cards had been examined it was announced that fourteen of the contestants had finished the day with perfect scores. They were the following: No. 9, Maxwell; No. 26, Reo; No. 12, Pullman; No. 32, Washington; No. 37, Pullman; No. 24, Crawford; No. 11, Maryland; No. 18, Corbin; No. 30, Marmon; No. 36, Elmore; No. 13, Pullman; No. 17, Croxton-Keeton; No. 21, American-Simplex; No. 20, Renault.

The technical committee penalized the following: No. 7, Ford, 1.7 points; No. 29, Hupmobile, 0.2 point; No. 5, Washington, 0.2 point; No. 31, Washington, 0.1 point; No. 1, Chalmers-Detroit, 0.2 point; No. 14, Spoerer, 0.3 point; No. 15, Columbia, 0.1 point; No. 16, Croxton-Keeton, 0.5 point; No. 20, Winton, 4.1 points; No. 34, Selden, 0.2 point; No. 27, Matheson, 0.4 point.

On the second day of the run several accidents occurred, which resulted in the elimination of cars, and one person being injured. The No. 15, Columbia, entered by Frank P. Hall, of Washington, skidded into a telegraph pole at Allentown, Pa., injuring the right rear wheel. Mrs. Hall was thrown against the side of the car and was badly bruised.

Owing to business engagements, T. S. Patterson, of Rosemont, Pa., was compelled to withdraw his Selden car. The Corbin car, No. 18, stripped a differential near Allentown and failed to report to the night control.

The following cars had perfect scores at the completion of the second day's run: No. 9, Maxwell; No. 26, Reo; No. 12, Pullman; No. 24, Crawford; No. 32, Washington; No. 11, Maryland; No. 17, Croxton-Keeton; No. 30, Marmon; No. 13, Pullman, and No. 28, Renault.

The total penalties to date are: No. 7, Ford, 2 points; No. 29, Hupmobile, 0.2 point; No. 5, Washington, 0.3 point; No. 31, Washington, 0.2 point; No. 37, Pullman, 3.6 points; No. 1, Chalmers-Detroit, 1.7 points; No. 14, Spoerer, 0.3 point; No. 20, Winton, 1.4 points; No. 16, Croxton-Keeton, 4.8 points; No. 21, American Simplex, 0.1 point; No. 27, Matheson, 0.4 point.

New Route Through Rahway

A new route from Elizabeth to Rahway has been suggested to tourists traveling through New Jersey, going either to Philadelphia, Lakewood or other places beyond Rahway, by A. H. Chamberlain, of Rahway, N. J. This new route is only a quarter of a mile longer than the usually traveled road by Cherry Street and Elizabeth Avenue, which now is said to be in very bad condition, with many holes. The new road is in admirable condition for automobile traffic. and as smooth as asphalt.

The new route leads south from Elizabeth on Westfield Avenue, turning into Cherry Street, and crossing the bridge and the Central Railroad of New Jersey tracks; then turn to the right on the first street into West Grand Street, which leads straight into Roselle. At this place turn to the left at Van Court Inn, following this road direct to Wheatsheaf turn, and then a turn to the right will lead into St. George's Avenue on the direct and usual route to Rahway.

RE CLEVE SEED TO SEE

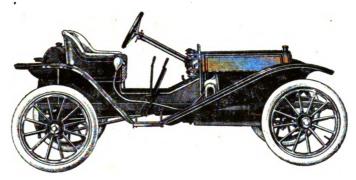
Automobile Topics Tour

From coast to coast

everybody says the same thing about the



4 cylinders 20 H. P. Sliding gears Bosch magneto



"The smartest and the best little car ever marketed in America at anything like the money."

What people are saying in your community about the Hup-mobile they are saying in every other community from coast to coast.

coast to coast.

No other car has ridden so quickly into widespread popular approval.

Everybody has a good word for the Hupmobile—and nobody can find any room for criticism.

It is the first small car ever built in this country that is in every way as good as the most expensive large car.

It is the first small car ever built in this country possessing real dash and individuality in design.

Most small cars are makeshifts in material,

Most small cars are makeshifts in material, in construction and in design—the Hupmobile is just as good in proportion and just as smart in appearance as the finest big car.

as the nest oig car.

If it were a large car, we could not afford to make it so good.

And you can be absolutely certain, if you see a larger car advertised at an approximate price, that the manufacturer has skimped somewhere—either in material or workmanship.

A finer or better power plant you will not find in any car. Other engines are larger, but none is built of better materials or with more careful workmanship.

SPECIFICATIONS

ENGINE...4 cyl., 20 H. P., 31-4 in. bore, 33-8 in. stroke; water cocled; offset crank shaft; fan bladed fly wheel in front; Parsons white bronze

bearines: noiseless cam-shaft.
TRANSMISSION---Selective sliding gears, shifting without noise.
CLUTCH---Multiple disc type, running

in oil.

REAR AXLE—Shaft drive.

BRAKES—Two foot and two emergency internal expanding) lined with Thermold on rear hubs.

IGNITION—Bosch high tension mag-

neto.
TRES...30 x 3 inches.
WHEEL BASE...86 inches.
TREAD...50 inches.
SPRINGS -- emi-elliptical front, pat-

ented cross spring rear.
EQUIPMENT....Two side and tail oil lamps, dragon horn, tools, repair kit,

WEIGHT---1100 pounds, regular equip-

The ignition equipment is the Bosch high tension magneto-the same as supplied on the costly large cars. And the Hupmobile is the only small car equipped with this world-famous magneto without extra

It is the same way throughout—in the sturdy strength of the axles; the pressed steel frame; the noiseless sliding gears—there is not a single point on which just criticism can be made.

If you can afford to maintain two cars—one of them should by all means be a Hupmobile.

And if you do put a Hupmobile in your garage alongside of your big car, you will find that involuntarily you will turn to it ten times to the once you use the larger one.

On the other hand, if you can have but one car, the Hupmobile's obvious ad-vantages—low first cost and low cost of maintenance—will appeal to you all the more strongly.

Get in touch at once with the Hupmobile dealer nearest you, and write for the literature.

On the Brighton Beach track, August 27, the \$750 Hupmobile defeated two S. P. O. (French) cars, listing at \$2,100; one Allen-Kingston, \$3,000, and one Mitchell, \$2,000, in the six-hour race, covering 226 miles.

HUPP MOTOR CAR COMPANY, Dept. D, DETROIT, MICHIGAN

Loose Sheets of This and Previous Sections May be Obtained by Remitting Ten Cents for Each

NEW YORK TO BOSTON

Second Section---Hartford to Boston

The second section of the New York-Boston tour takes the tourist over a more direct and, on the whole, a better route than the old one through Springfield. The details follow:

Start east on State Street. Turn left on new Connecticut Boulevard and immediately beyond pick up trolley tracks. Follow same direct to

Manchester (11 miles).

Continue with car tracks to Talcottville. Over small bridge and follow State road. At end of road turn left and then right up hill to

Rockville (19 miles).

Take right and then left turn at top of hill and then straight ahead to Tolland. Turn left at white church and left again onto main road to Stafford Springs. At first fork keep to right and then straight

Stafford Springs (31 miles).

Going down Main Street turn left and then right up steep hill. At fork take left hand road and at next fork right hand road. Turn right at next cross roads, and again turn right at another cross roads, a short distance beyond and then direct

Union (40 miles).

Take Southbridge Road through Mashapaug and direct to

Southbridge, Mass. (491/2 miles).

Take road direct north, 5½ miles to Charlton City, thence north-by-east to North Oxford and Larnedville. Follow road taken by trolleys; when they turn right keep straight ahead, meeting them again on the State road at Dunn's Pond. Follow trolleys and turn right into Main Street of

Worcester (70 miles).

Run on Front Street along City Hall Common and at fork beyond R. R. bridge bear left over R. R. grade. Straight ahead bearing right into Belmont Street. Follow trolleys and bear left on Maple Avenue. Straight ahead into

Northboro (80 miles).

Straight through, taking right turn with trolley at "T," turn about I mile beyond. Keep straight ahead after trolley turns left, meeting it again a short distance be beyond. Follow the trolley into

Marlboro (85.6 miles).

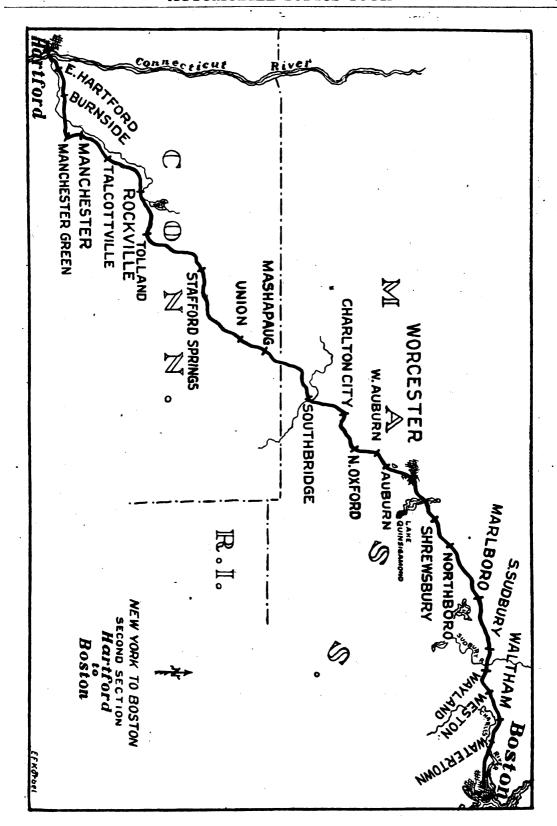
Follow trolley, taking left turn. At cross roads leave trolley, keeping to right. Keep right on main road at fork beyond. Straight ahead on macadam road to Central Avenue at fork beyond. Straight ahead on macadam road to Central Avenue to

Weston (99.8 miles).

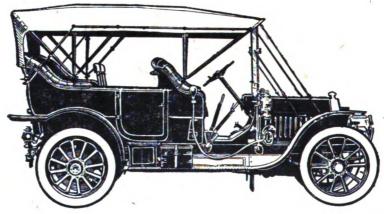
Turn right into School Street, bearing right at "T" in road just beyond. Turn left into Newton Street and follow same till end of street. Turn left into South Avenue. Follow same onto Commonwealth Avenue extension. Continue on macadam until Chestnut Hill Avenue. Turn right. Straight ahead until intersection of Commonwealth Avenue. Bear right and continue along Commonwealth Avenue to Massachusetts Avenue. Turn right and then turn left on Boylston Street. Straight to Boylston and Tremont Streets,

Boston (114.1 miles).

TOTAL OF







The Strongest Confirmation

Of Peerless perfection is the fact that only a few minor changes are required from year to year—being so good in the main constructive principle that there is practically no room, or need, for betterment. Peerless is not the car to be—it is the car that is.

Catalog E will be sent on request

The Peerless Motor Car Company 2463 East 93d Street, Cleveland, O.

Members of Association Licensed Automobile Manufacturers

The "Back to the Farm Movement" and Autos

A short time ago James J. Hill, the famous railway magnate, drew an alarming picture of the starvation period which was threatened in the near future by the steady withdrawal of the farming element and its flocking to the cities. This gradual shifting of the population, Mr. Hill says, would ere long result in the United States becoming an importer instead of an exporter of food stuffs, and the transition to the starving period would be rapid.

Declaring that Mr. Hill is treating of past conditions rather than those which now exist, and prefacing his remarks by asserting that those in the automobile trade are in a position to judge, Hayden Eames, general manager of the Studebaker Automobile Company, points out that the trend is just the other way, and that the automobile is responsible for it in considerable part. He says:

"Mr. J. J. Hill's address before the meeting of the Bankers' Association of Chicago, is most refreshing and gives the ordinary business man considerably more confidence in the mental grasp of those who control our financial affairs than is usually derived from contact with that class. A little acquaintance usually shows up the great financiers in the light of pursuing methods and entertaining mental points of view varying, accordingly to circumstances, from those of a pawnbroker to those of a professional gambler.

"There is one point, however, in regard to which Mr. Hill seems to be misinformed, namely, the favorable influence of the automobile upon the very conditions which he would like to bring about, namely, an increase of agricultural as compared with urban population.

"It looks as though the vast affairs with which he is concerned, have compelled him to view the former collective-

ly rather individually, and he seems to be correspondingly unfamiliar with the change of the last six or seven years, and the advent of the automobile, has made in the details of the farmers' life. Nor, does he seem to recognize the large part which the automobile has, and can be made to play in justifying the extension of his own railroads and in the preliminary work of opening up new territory with that ultimate object in view.

"We wonder if he recognizes the extent to which the individual farmer is beginning to specialize in the apparatus which he employs on his farm. No small number of agricultural implements now used by the farmer have their functions so combined with those of other implements which have heretofore been of general application, as to supersede the latter, and, consequently, materially specialize the type of apparatus and vehicles which he used for other purposes.

"The advent of the automobile, while not directly responsible for it, has tended to facilitate this process.

"At one time, there were a dozen uses for a certain kind of wagon which might be described to-day as an unspecialized type. To-day, a number of agricultural implements accomplish in themselves a part of the services which were heretofore accomplished by such wagons; and, with one exception, the remainder of the services performed by that wagon are now found to be better performed by a more specialized type; that exception is the transportation of the farmer and his people from one point to another. The new specialized type is not convenient for this purpose and the farmer resorts to the automobile. He goes to town every day, perhaps, and spends very little time in doing so, instead of every week at the expense of an entire day and the service of "a team."

"The automobile makes the quartersection farmers near neighbors and develops a sense of community in agricultural districts which makes the farmer's lite and surroundings much more liberal, and under many conditions, far more attractive even to the young people than the life of the city.

"As an example of the part the automobile is playing, and can be made to play in the affairs with which he is concerned, it may be interesting for Mr. Hill to know that at the time the Belgian steel operators were migrating to the Baltic provinces of Russia in great numbers, the resulting reduction in the population of some parts of Belgium was such that underwriters of certain extensions of the Belgian railawys seriously considered availing themselves of the use of the automobile to protect themselves against what would have been a decidedly unprofitable execution of that part of their obligations which called for the extension of the railway in the partially deserted districts.

"The broad principle underlying this is, of course, equally applicable to any sparsely populated territory irrespective of the cause of that sparseness. We venture the opinion that if the dissection of the census of 1920 is such as to reveal it, it will be found that the migration during the preceding decade will have been from the city to the country, at least in a large part of the United States. We are not so sure that the census of 1910 might not already reveal a tendency of this kind, provided the concentration of immigration in cities does not entirely close the question.

"Mr. Hill should recognize the automobile, not as a disadvantage to the agriculturist, but as one of the most potent factors co-operating with his own splendid efforts and accomplishments toward agricultural development.

"In spite of this somewhat minor criticism, we cannot but feel that it would be a good thing if Mr. Hill's address were published in pamphlet form as a text book in the schools."

Orange and Black for New Jersey Tag

During 1910 the colors of the New Jersey license tags will be orange and black, and Commissioner of Motor Vehicles, J. B. R. Smith, is quoted as saying that this selection was made in honor of Princeton University. The body of the 1910 tags will be orange and the numbers will be black. The seal and the letters "N. J." will appear before the numerals instead of behind them, as is the case with this year's tags.

Commissioner Smith has advertised for bids for 25,000 sets of tags and 551 sets of manufacturers' and dealers' markers. The latter having from one to five pairs of tags in a set. The successful bidder must agree to begin delivery of the tags on November 10, and finish the order by December 1 of this year. The

tags are to be made of wrought iron, and the enamel must not chip off.

Chicago Show Blanks are Out

Samuel A. Miles, manager of the Ninth Annual National Automobile Exposition, which is to be held in Chicago at the Coliseum and First Regiment Armory from February 5 to 12, next, has sent out the application blanks and diagrams of the Western metropolis show of 1910. In order to be considered in the first allotment of space which will take place on October 6, applications must be received by October 2. As in past seasons, the Chicago show will be supported by all classes of manufacturers and will therefore be the national show of 1910.

Autos Damage Roads Less than Horse-Drawn Vehicles

Road experiments of considerable importance were conducted last week in New Jersey, and a comparison was made of the destructive effects upon them of automobiles and horse-drawn vehicles. As a result, some preconceived ideas regarding the matter are upset, and the motor vehicle is relieved from some of the odium under which is has labored for some time.

The tests had been carefully planned and were carried out on Ridgewood Avenue, Glen Ridge, Friday afternoon, September 17.

Starting from the New Jersey Automobile and Motor Club, the party went to the road in the cars used in the tests, which continued from 2:30 until about 4:30 o'clock. Joseph H. Woods, in a Maxwell and C. E. Fisher and E. G. Ward in a Cadillac did most of the racing abreast over the road, to test the effect on the edges. City Engineer Morris R. Sherrerd drove a Maxwell.

Andrew J. Gavett, street commissioner of Plainfield, appeared to represent Mayor Fisk, of that city; Worthington M. Jacobus, chief engineer for the Newark Meadows Inprovement Company; James C. Hallock, Mr. Sherrerd's assistant, and E. M. Vail, who represented State Road Commissioner Frederick Gilkyson, assisted Mr. Owen in making observations.

Director Ougheltree, Freeholders Eager, Peck, Harrison and Althen; County Supervisor Baldwin, County Clerk Woolston, Board of Works Commissioner Denman and many members of the automobile club were spectators.

County Engineer Owen declared that an oil-treated surface stood the strain the best, although ordinary telford, which had been uncared for, and a stretch with a clay top dressing showed not the slightest signs of a break after high speeding cars had passed along. Over a mile of road, cars which ranged in weight from a ton to 3,800 pounds were driven at speeds between ten and sixty miles an hour. The weight of the car, its speed, and its position on the road were all considered in the county engineer's estimate of the results.

"It was apparent," said Mr. Owen, "that automobile traffic at low speed is not detrimental to a macadam surface as the tires merely compress the road. The limit of speed where no effect is observed is between twenty and twenty-five miles an hour. At a higher speed stripping action begins, and with continuous stripping the loosening tendency is inevitable. Dust raising, of course, is a sequence.

"The stripping effect is reduced if a clay packed surface is used, but the dust is still objectionable. An oil-treated surface practically eliminates dust and a continually good surface is maintained.

"The wear and shattering of the surface of macadam roads is not due alone to the automobile but to the combination of this class of traffic with horse-drawn vehicles. The roads of the future which are to take this travel and the methods of road maintenance of the future must be adapted to this end and with this in view."

After the automobiles had finished speeding on the road, five heavy coal wagons were drawn over the highway to ascertain the effect of this sort of traffic. According to the county engineer's notations, the result showed that the hammering of the horses' calked shoes and the action of a wide iron-tired wagon tended to bring about a complete breaking up of the road. Large stones that were undisturbed by the automobiles were displaced by the horses and wagons.

"There is no tendency for the claypacked surface to break up under highspeed automobiles," Mr. Owen declared, "but merely to shed the dust from the surface and scatter it according to the direction of the wind.

"The results of these tests were not in accordance with the general expectation or accepted opinions. Instead of the high speed breaking up the surface and scattering the loosened particles, no such results were noted. The dust that had accumulated was in all cases the only medium distributed."

While the automobiles were traveling at twenty miles an hour or less, nothing could be noted in the effect on the road which would result in injury. ing above twenty miles an hour and up to thirty miles the cars began to grasp the road material instead of compressing it, and at thirty miles an hour the wear of the car wheels became apparent and small particles were carried from their place, though the effect could not be considered dangerous to the welfare of the road. At higher speed the road surface was stripped bare of dust. Traveling at high speed on the oiled section the automobiles caused only a little suction and raised very little dust."

Mr. Owen's figures on the results of automobiles traveling at varying speeds were as follows:

For Telford Surface.—Ten miles an hour, no trace left in center, compression of dust at side; twenty miles an hour, the surface dust spread sideways, but no stripping; thirty miles an hour, surface dust begins to strip; forty miles an hour, surface under tire swept bare; forty-five miles an hour, dust lifted, surface stripped, but no breaking; fifty-five miles an hour, road stripped bare, but no breaking; sixty miles an hour, road stripped bare, but no breaking.

Oiled Road.—Thirt ymiles an hour, heavy oiled dust raised about one foot; forty miles an hour, heavy oiled dust raised about one foot; sixty miles an hour, strips dust. The high speed on the

oiled road had no effect on the surface, either by loosening it or scattering the particles sideways.

Clay-Packed Surface.—Fifteen miles an hour, compression only; twenty miles an hour, dust raised; thirty-five miles an hour, heavy dust raised, no breaking; forty-four miles an hour, heavy dust raised, no breaking; fifty-two miles an hour, heavy dust raised, no breaking.

Where the tests were held the roadbed is about eight inches deep, of which the surface coating, originally three inches thick, was reduced to about two inches. The road has not been repaired for three or four years. No attempt has been made at dust laying—in fact, the avenue was purposely neglected for the tests. The effect of the continuous automobile travel of recent years was to lay the center completely bare of the dust covering and loosen the smaller stone. Few large ones were displaced in a length of half a mile. The dust covering which accumulated on the sides was packed down fairly hard and smooth. In a stretch of half a mile only slight abrasion was apparent.

Three kinds of roads were utilized for the tests. One was a strip of telford, which had been without treatment for about a year and a half, but which was in excellent condition; another was a stretch with a top dressing of clay, and the third was oiled road. The application of oil to this third section was made about two months ago. All three kinds of road joined and made a level, straightaway course of about a mile.

Beginning at the lightweight cars at slow speed and continuing until the large type of racing car was traveling over the course at express speed, the automobiles were run over the road. County Engineer Owen noting the weight of each machine, the speed at which it was traveling, and the effect on the road.

Eleven automobiles were used. Some

were run from side to side at speeds ranging from twenty to forty miles an hour, to determine the effect on the edges of a road in a race between machines. It was apparent that this was more wearing on the surface than a single car traveling at higher speed in the center. This was due to the fact that the edges of the road afforded less compact resistance to the tires.

Robertson S. Ward's 40-50 hp. Dietrich, with Mr. Ward driving, and a Locomobile belonging to Joseph H. Gay,

of East Orange, and driven by Clarence F. Boyd, were sent along the course at a sixty-mile-an-hour clip, and on one stretch at a higher speed than this. Suction from the fast-speeding wheels drew small particles of dust which sifted away on the wind. This applied to both the stretches of ordinary telford and also that with clay top dressing. On the oiled road, however, even the big cars raised little dust, and the cars scarcely stripped off enough of the roadway to be apparent.

Finds Simplex Winner was a Stock Car

Decision in the matter of the protest against the Simplex Car driven by George Robertson, which finished first in the heavy car race of the Lowell Automobile Club on September 8, was given last week by the Contest Board of the A. A. A. The protest was not sustained and the place won by Robertson was affirmed.

A visit to the Simplex factory in New York was made by the Technical Committee appointed in connection with the Lowell meeting, with the result that the committee was satisfied that Robertson's car complied with the rules of the A. A. A. relating to stock chassis. A report to this effect was made to the Contest Board, and that body approved the finding and authorized the giving

of the prizes to the cars in the order of finish. The protests against Robertson's car were based on the specific allegation that it was not a regular stock model, in that the driving chains were lubricated by two pipes which dropped oil on the sprockets at regular intervals. These protests were immediately turned back by the Board of Referees, as they did not comply with the rules of the A. A. A. Contest Board regarding the filing of protests.

Because of the importance of the race, Chairman Hower, S. B. Stevens, and T. A. Wright, of the A. A. A. Contest Board, all of whom were at Lowell, decided that an investigation be made to settle the question as to the eligibility of the Simplex.

To Try-out Atlanta Course

During their recent trip to New York President Asa G. Chandler, Jr., and Secretary Edward M. Durant, of the Atlanta (Ga.) Automobile Association, promoters of the automobile speedway which is scheduled to be opened for the initial meet during the early part of November, made arrangements to have three prominent racing drivers visit the Southern speedway and try out the course. These arrangements were made through Fred Wagner, who will act as

starter at the Atlanta meet, and the three drivers are George Robertson, Ralph De Palma and Charles Basle. These drivers will visit Atlanta immediately after the 200-mile race in Fairmount Park, Philadelphia, on October 9. In view of the fatalities attending the opening of the motor speedway at Indianapolis, motorists in general agree in declaring that the Atlanta people have made a wise move in securing these expert drivers.

Massachusetts Gets Data on Vehicular Traffic

It appears that the census of wheeled vehicle traffic taken near Worcester, Mass., which was reported in Auto-MOBILE TOPICS a few weeks ago, was only a part of a vast plan engineered by the Massachusetts State Highway Commission to obtain reliable and up-to-date data concerning the use of the roads. At 237 designated points in Massachusetts during the second week in August, a census was taken, and since then a corps of clerks have been figuring out the result. When their work is completed the commission will be able to tell just what the traffic requirements are and what the proportions are where motor-driven and horse-driven traffic is concerned.

During the second week in August, already referred to, men and boys were stationed at these 237 fixed points. Score books in hand, they sat by the roadside from 7 A. M. until 9 P. M. and kept tally of all vehicles that passed. It develops that 42 per cent. of the total traffic is that of automobiles, while at some points, especially in Boston and on the north shore, motor vehicles greatly outnumbered the horse-drawn ones.

The road most traveled was the State road leading from Lawrence to Haverhill. During the week an average of 1,620 horse-drawn vehicles and 820 automobiles, making 2,440 vehicles in all, traveled this highway daily. On Saturday, August 28, 3,509 vehicles passed over this road. As the counting station is really in the city, the commission considers that much of this must have been city travel.

The Boston Park Department also took a census of vehicles at Charlesgate East on Commonwealth Avenue, showing that the daily average of automobiles passing this point was 254 runabouts, 1,837 touring cars, totaling at 2,091. In addition there were 401 horse-

drawn vehicles. At Prince and Pond Streets, Jamaica Plain, during the average day there passed 764 automobiles and 333 horse vehicles. At the junction of Washington, 230 automobiles passed and 205 horse-drawn vehicles.

The Metropolitan Park Commission took a count on seventeen roads. At three of the four stations where traffic was heaviest automobiles quite outran the horse-drawn vehicles in numbers as well as in speed.

The stations were:

	VEHICLES.		
Stations	Horse	Auto	Total
Revere (east)	. 347	230	577
Saugus River Bridge	. I24	1177	1301
Beverly (east)	. 635	976	1611
Gloucester (south)	. 279	623	902

The 237 stations were distributed according to the amount of traffic; i. e., there were 77 stations in division 4, while there were but 25 in division 1, out in the Berkshires. The vehicles passing the average station in each division each day were:

Divisions	Sta.	Horse- drawn	VEHICLES Auto- mobiles	All kinds
No. 1	25	119	73	192
No. 2	29	175	61	236
No. 3		119	7●	189
No. 4	77	175	154	329
No. 5	59	177	146	323
_	237	159	115	274

The daily average of the traffic on the State highways for the week, from 7 A. M. to 9 P. M., was:

HORSE-DRAWN VEHICLES			AUTOMOBILES			
Div.	Light	Heavy	All	Run- abouts	Tour-	All
1	1,665	1,306	2,971	362	1,475	1,837
2	3,112	1.968	5,080	484	1,335	1,769
	2,804	2,834	5,638	695	2,571	3,266
4	6,574	6,907	13,481	2,756	9,083	11,839
5	5,467	4.954	10,421	1,675	6,923	8,598
Ttl	19,622	17,969	37,591	5,922	21,387	27,309

Another traffic census will be taken beginning on October 10 and from it the commission expects to be able to draw even more accurate deductions, as the automobile travel will be confined more to the cities then.

There will be no night count taken

this time. Watch was kept over a dozen roads leading into Boston and one or two other cities during the whole twenty-four hours, in the expectation that there would be a good many vehicles bringing the garden truck to market. These proved to be so few that there is no necessity of repeating the experiment.

It cost \$2,200 to pay the scorekeepers on the previous count, and it will probably cost a little more this time. The division engineers employed the counters and were able to hire a number of school children before school hours. As the children are back in school now, the engineers will have to employ men.

The stations were not evenly distributed through the State, inasmuch as the highways center, near the thickly populated districts. For the census the State was divided into five divisions. Boston and the cities north of it to the State boundary line and in a territory extending west to an irregular line passing through Milford, Ashland and Shirley, were in division 4.

Division I was at the extreme west of the State and includes Berkshire and the western halves of Hampshire and Hampden counties. Divisions 2 and 3 filled in the center of the State, being triangular in shape and fitting into each other. Naturally the heaviest traffic was in division 4, as nearly all the larger cities are in this region. Division 5 was the country south of Boston and division 4. It included Norfolk, Plymouth, Bristol and Barnstable counties. About 800 miles of roadway was checked off.

To Tax Foreign Owners Who Enter France

Commencing January I next, motorists entering France with foreign cars will be compelled to pay a regular tax based on the horsepower of their car and length of sojourn. At present foreign motorists contribute nothing toward the upkeep of French highways. It was recently decided by the Budget Commission of the Chamber of Deputies that for a stay of 360 days a two-seated vehicle must pay a fixed tax of 50 francs (\$10), and for a vehicle of more than two seats, 90 francs (\$18). If the length of stay is less than above,

amounts will be reduced in proportion.

An additional horsepower tax also forms a feature of the new measure, which will be placed in the hands of every French consul, in order that it may be widely circluated before the beginning of another season. The additional tax amounts to about 20 per cent. and none of this is returned, as under special conditions has been the case heretofore. In case of false declaration or intent to evade the taxes, the penalty will be a fine equal to four times the amount involved.

Musconetcong Road to Be Macadamized

The Board of Freeholders of Sussex County, N. J., has ordered that the stretch of road from the Musconetcong River, at the Morris County line, to the county road in the borough of Stanhope be macadamized. The same county officials have ordered a piece of road three-quarters of a mile long through Stanhope to be improved with crushed stone. This will provide a good through road

on the turnpike from Newark to Newton. The borough of Stanhope is to bear 10 per cent. of the expense.

The New Jersey Automobile Dealers' Association has decided to hold its annual show in February. No definite plans regarding a location have been made, but it is probable that the Essex Troop Armory, at Roseville, will be used.

Allotments for Garden Show October 7

Application blanks for space at the Tenth Annual National Automobile Show at Madison Square Garden, which opens January 8 and continues until January 15, 1910, were issued this week. They are in the usual form of a complete booklet containing an application form, with rules and regulations and diagrams of the various sections where the exhibits are to be staged. Everything is most complete and compact and convenient to a remarkable degree. Applications must be received by October 1, and the first allotment will be made on October 7.

The exhibits are classified by departments as follows:

Main Exhibition Hall — Gasolene pleasure vehicles only; allotted to members of the Association of Licensed Aucomobile Manufacturers.

Exhibition Hall, Madison Avenue Front—Electric pleasure vehicles; allotted to manufacturers of electric pleasure vehicles.

Elevated Platform—Gasolene pleasure vehicles, tires and accessories; vehicle section allotted to members of the A. L. A. M.; accessory section to members of the Motor and Accessory Manufacturers.

Balcony and Third Tier—Tires, parts and accessories; allotted to manufacturers of accessories not included in other departments.

Concert Hall—Tires, parts and accessories; allotted to members of the Mtoor and Accessory Manufacturers.

Basement—Tires, parts and accessories, motorcycles, commercial vehicles; accessory department allotted to manufacturers of accessories not included in other departments; motorcycle department allotted to manufacturers and importers of motor cycles, first consideration being given to the members of the Motorcycle Manufacturers' Association. Commercial vehicle department allotted to manufacturers of commercial vehicles.

Fatal Accident Ends a Press Run

The transcontinental automobile relay run from Philadelphia to the Alaska-Yukon-Pacific Exposition at Seattle, Wash., under the auspices of the Philadelphia Press, came to a sudden end late in the afternoon of Saturday, September 18, the first day of the run, when the first relay car met with an accident at Robesonia, Pa., that caused the death of Henry L. Buckley, a reporter for the Press, and injury to the four other occupants of the car, one of whom may die as a result.

The relay was started by Mayor Reyburn from the City Hall of Philadelphia, at 12:30 noon, and Buckley, who acted as courier of a message from President Taft to the president of the exposition at the Western coast, was to

have been relieved at Harrisburg. As the automobile was going through Robesonia at a twenty-five-miles-an-hour speed, according to a statement of one of the men in the car, something went wrong with the rear tire. For some unknown reason the car upset and Buckley was thrown to the middle of the road. His skull was fractured. Relief automobiles brought the injured to Reading, where Buckley died. When the news of the accident reached Philadelphia the run was called off.

Henry L. Buckley had only been writing automobile news for the *Philadel-phia Press* for a little over a year, but in that time became well acquainted and well liked among Pennsylvania motorists.

Four-Cylinder Ramblers for 1910

There are five models of the New Rambler built upon three different chassis, all with four-cylinder engines, magnetos and 36 inch wheeels.

Model Fifty-five, seven-passenger touring car, \$2,500; seven-passenger limousine, \$3,750; model Fifty-Four, five-pessenger touring car or four-passenger close coupled, \$2,250, and model Fifty-Three, five-passenger touring car, \$1,800.

In design and materials the engine, transmission, drive shaft, axles, frame and wheels, are alike for all three chassis. In these particulars they differ in size only.

Those individual Rambler features of the past which have now thoroughly demonstrated their advantage—the offset crank-shaft, big wheels, and Rambler spare wheel, straight line drive and engine accessibility, are found in all three chassis.

Two of the chassis have engines $5 \times 5\frac{1}{2}$, which deliver 45 hp. These chassis differ only in wheel base and tire size.

Model Fifty-Five, the seven-passenger touring car, has 45 hp. engine, 123-inch wheel base, 36-inch wheels and 4½-inch tires. This model, complete with magneto, gas lamps and Prest-O-Lite tank, electric side and tail lamps and 6-80 storage battery, sells at \$2,500.

The same chassis, with 5-inch tires, is used for the seven-passenger limousine.

Model Fifty-Four is provided as a five-passenger touring car, or four-passenger close-coupled, and sells at \$2,250, with the same equipment as provided on Model Fifty-Five. It has the 45 hp. engine, 117-inch wheel base, 36-inch wheels and 4-inch tires.

Model Fifty-Three is another fivepassenger touring car. This is almost a duplicate of model Forty-Four of last year. The cylinders are $4\frac{1}{2} \times 4\frac{1}{2}$ and deliver 34 hp. This model, with magneto and lamp equipment, sells at \$1,800.

As the differences have been explained above, the following description will apply to both models Fifty-Five and Fifty-Four.

The engine, as the photograph shows, is of the same type that has been so successful in models Forty-Four and 34 Ramblers of the past two seasons. The valves overhang all on one side, and the crank-shaft is offset 25% of the piston stroke. The crank-case is of the barrel type, with an opening 23 x 8 inches on the side for inspection and adjustment. A wedge type of bearing, adjustable from the side, shown in the illustration, makes possible easier and more perfect adjustment from the side than can be accomplished by the bolt method.

In the 1910 model the pump has been moved to a position forward of the camgear case. This change is to provide for a more accessible magneto location. It is now located on an extension of the pump-shaft, just back of the cam-gears. It can be very easily reached for both inspection and adjustment.

A combined shield and oil gutter attached to the crank case at the rear of the fly wheel and main bearing returns all surplus oil that may work through this bearing back to the crank case. This eliminates the possibility of its dropping on to the fly-wheel and being thrown on to the other mechanism.

In models Fifty-Five and Fifty-Four chassis the clutch has been changed from the cone type to internal expanding. This eliminates end thrust on the crank-shaft, and its design is such that it exerts the greatest pressure when fully engaged. With the average clutch the spring is expanded when the clutch is engaged, so that it then exerts the

least instead of maximum pressure. This clutch has been very thoroughly tested on a number of different Ramblers, and it has been found to be ideal in operation. It engages very gradually, holds positively and disengages instantly.

The only change in the transmission is at the roller bearing, which carries the forward end of the main drive shaft. This is a hinged bearing with a dowel fastening, retained in a steel case and provided with adequate means to compensate for all end thrust.

The rear axle continues of the semi-floating type, but the drive shafts are larger, and a new model is used for securing the wheels. On the Rambler drive shafts the differential gear is upset on the end of the shaft, making the drive gear and axle integral. Now, the wheel end of the shaft is also upset. This enlarged end is squared and tapered for the forged wheel hub. This method of upsetting or enlarging the shaft before squaring it, makes it strongest at this point, whereas otherwise the metal removed by squaring would weaken it.

The springs are of the triple action type, but somewhat modified in design from those of last year. They are straighter and the second leaf is longer, extending into the bend of the top leaf, so as to support it.

The steering continues of the screw and nut type, but the nut has been lengthened to increase the wearing surface, and a ball-thrust bearing added with better provision for adjustment.

A neat pressed steel bracket supports the bonnet at the dash. The strap is done away with and the bonnet is held down by convenient spring clamps.

Particular attention has been paid to the guards; they are wider, heavier, better braced, convexed, both to strengthen them and improve the appearance, and their outline is much more graceful. The front guard follows the radius of the wheel, while the rear guard extends straight back with the body lines.

A neat filler strip projects from nearly the top of the frame to the running board, entirely covering the running board supports. Four of these supports are provided for the larger and wider running board now used. This board is aluminum-covered.

The changes in the bodies apply alike to both models. The most important change is to lower the seats. This adds to the comfort of the passengers, and improves the appearance. More room is provided between the front seat and the pedals.

The tonneau floor is counter-sunk between the frame channels, providing plenty of room even with the lower seat. Above the frame channels the tonneau is widened. In the seven-passenger car ample room is provided to pass between the two extra chairs when they are occupied.

These bodies are very richly upholstered with hand-buffer leather, curled hair and deep springs. Deeper springs and better hair are used than heretofore, adding greatly to the riding qualities.

Although model Fifty-Three is a smaller car, it can hardly be called a small car, particularly in power. With $4\frac{1}{2} \times 4\frac{1}{2}$ cylinders the engine delivers 34 actual horse-power by dynamometer test. The performance of this model is even better than its predecessors, because the car otherwise is somewhat smaller and lighter. The wheel base is 108 inches, the wheel 36 inches and tires $3\frac{1}{2}$ inches. Four-inch rear tires are furnished, if desired, at \$20 extra.

The description of models Fifty-Five and Fifty-Four, relating to the pump and magneto locations, the oil shield and gutter, transmission bearing and rear axle, apply also to this model. Practically the only other important change from its predecessor is in the rear springs. They are the full elliptic Rambler type with involute ends. These springs have been used for two seasons on other Rambler models, and have so thoroughly demonstrated qualities of unusual comfort as to warrant their adoption for this model.

Model Fifty-Three is so nearly like its predecessors — models Forty-Four and 34—that its merit is very generally known.

Thomas B. Jeffery & Company have been delivering models Fifty-Five and Fifty-Three for three or four weeks, and are commencing deliveries of model Fifty-Four now.

Celebrating with "Billy" Hurlburt

One would have to go far to happen upon a choicer aggregation of good fellows than gathered at the Queensboro, in 59th Street, New York, on Wednesday night of last week. They were there to rejoice over the recovery of "Billy" Hurlburt after his narrow escape in an accident which occurred a few months ago.

The entertainment, which was in charge of "Tom" Moore, and Charles R. Teaboldt, consisted first of a lunch at the Queensboro, where the guests were blindfolded and then carried in taxicabs to Fleischman's baths, where they were ushered into the steam rooms with all of their clothes on. Afterward everyone took a plunge in the pool, witnessed some boxing and wrestling matches and then sat down to a midnight supper in the gymnasium.

The chief decorative piece on the table was the stone on which Hurlburt landed in the Bryan River. Among John De Mar, those present were: "Ned" Broadway, William Interriedien, Ben Richert, George C. John, J. H. Perlman, "Doc" Moore, "Birdie" Munger, Stewart Elliott, Ed. Lozier, "Jack" "Sundry" Wise, "Seneca" Lewis, Frank Roche, R. B. Johnson, W. W. Burke, John C. Wetmore, Harry Fosdick, L. D. Rockwell, A. J. Picard, A. B. Cordner, E. S. Partridge, George McLaughlin, George Prim, J. A. Jones, E. F. Van Dusen, Fred Cribbons, John Gerrie, W. J. Fickling, E. Nussbaum, A. C. Kline, Percy Barton, and Dr. Grausman.

Reed Haviland, who was with Hurlburt in the accident, was joint toast-master, with "Tom" Moore. John De Mar read the valedictory to the condemned novitiates, and C. R. Teaboldt was the author of the poetic inscription on the historic rock.

Ten Thousand People at Westchester Races

One of the closing features of the Westchester County Fair, at White Plains (N. Y.), on Saturday, September 18, was a fifteen-mile automobile race in which four cars participated. It is estimated that more than 10,000 persons, including many prominent society leaders of Westchester County, witnessed the race, which was run over the half-mile horse track. The race was won by a Mercedes, driven by S. E.

Wishard. Wishard covered the thirty circuits of the track in 21 minutes 21 seconds. A Maja finished second, seventeen seconds behind the leader, while a Buick was third. The Mercedes went to the lead at the start and was never headed, the Chalmers-Detroit dropping out on the first mile, and the other two fighting for second place. The Maja passed the Buick on the final lap and won second prize by a scant margin.

Care of Acetylene Gas Lamps

Both because of the attention that has been drawn to headlamps by the recent R. A. C. tests, and also because of the closing-in hours of daylight, which will very soon once more call for the very general use of the lamps on one's cars, a few comments concerning the practical management of acetylene generators will doubtless serve a valuable purpose just now, say a writer in Automotor Journal. Whether our own observations in connection with the average use of acetylene headlamps have been exceptional, or whether they may be regarded as a fair reflection of those of the majority of motorists, we are not prepared to say, but the fact remains that we have so often, in the course of our night rides, had to come to the rescue of other people by stopping on a bleak country-side to coax a little light from an apparently lifeless, or lightless, acetylene system, that we have almost come to look upon it as one of our particular duties in life.

The pleasure to be derived from night driving by the aid of a thoroughly good headlight, and the utter impossibility of proceeding at more than a crawl without one, are so generally appreciated by motorists of all ranks, that it has been a never-ceasing wonder to us why so many drivers do so little to ensure the proper working of their headlight apparatus. Indeed, it is no uncommon thing to come upon motorists of experience who are in a state of comparative ignorance as to the construction and operation of the acetylene generators on their own cars. Most of them apparently manage to find out sufficient about them to be able to replenish the carbide and the water, but by no means all are any too sure about the proper way to reassemble the parts after having performed the operation in question. This has always seemed to us to be the more surprising, as most people are instinctively afraid of acetylene—besides being very naturally averse to its odor—and neglect in this respect is quite the surest way of preparing for trouble as well as for the unpleasant consequences of leakages or stoppages in the system.

There has seldom, so far as our own experience has gone, been any excuse for having an acetylene system in anything but a good condition, for common-sense ought to suggest that the parts be kept clean, and we have found that in many cases the makers stamp very complete instructions on the apparatus itself. As often as not, this lettering becomes obliterated with grime, however, and thus are the most careful precautions frustrated in their effect. Cleanliness is the secret of success with acetylene light, and there is, our experience has taught us, only one thing to do with an obstinate system—wash it out. The process is none of the pleasantest on a cold winter's night, when a bucket of freezing water has to be borrowed from some lonely cottage in the vicinity, and it is surprising that such lessons as this—and they must be frequent enough -do not make motorists prepare things in the more congenial surroundings of their own garage before they start.

There is, however, a mistaken idea, which we have found to be prevalent, that it is inadvisable to get the lamps in working order before they are wanted, lest, as was the case with the foolish virgins of old, there be no "oil" left when the time comes. This may be the case with an ill-constructed generator, or one that it badly kept, but under proper conditions it is, we have always found, much better to make quite sure before starting that the lamps will light, because apart from the generator itself there are the burners and piping to be taken into consideration, either of which

may have become choked up. If the burners are at fault it generally signifies the end of all hope, for it will be a red-letter day, indeed, when the motorist discovers he possesses a new burner of the right size in his spare kit.

Prodding the burner hole with a needle is fairly certain either to break the burner or the needle, and if the latter happens, the point has a habit of remaining embedded, and the burner is then quite useless. The orifice in an acetylene burner is far too small to pass any ordinary implement, although we have observed a good many people trying to clean them with tools of a size which suggested that they thought the little recess leading to the burner hole proper was the orifice itself. quires a good light and fair eyesight to see the hole at all. Blowing through the burner after detaching it from the lamp is a simple expedient, which is obviously worth trying in any case, although not very tasty as a rule.

The nature of the obstruction is not generally the accidental presence of some light fluffy material such as is apparently imagined by quite a number of users. It is far more often a good solid chemical deposit, difficult, if not impossible, to remove, and consequently nothing short of a spare burner can be relied upon to put matters right. One memorable occasion when fortune favored us in getting rid of it is, however, worth recounting. We had tried every conceivable means of clearing the only burner on the car, and finally threw the obstinate thing into a tumbler of water to drown it and our disgust, while we relieved our feelings somewhat at the supper table. As the meal progressed, so did a thin red streak of precipitate slowly ooze from the burner orifice into the water, and on subsequent investigation we had the pleasant surprise of finding that this simple "cold-water" cure had been comletely effective. It is the only occasion on which we have been thus favored by fortune, and as the process would always be a slow one, it would hardly meet the exigencies of all cases; nor, as a matter of fact, do we think that it would be an infallible solution, since the precipitate was not in this case carbon deposit. The safest way is to carry spare burners, and to make sure that those in use are not abused.

Abuse in the case of actevlene burners principally consists in allowing them to remain in action when the generator is producing the last of its gas at a feeble pressure. Flickering, or a great diminution in the size of the flame, is the usual sign of this taking place, and when it occurs the light should be turned off at once, so that the burner may not be carbonized, as it is almost sure to be if used for long under such circumstances. It is for this reason that most makers disfavor the principle of turning down the light with the object of reducing the glare when passing through towns.

There is another point about acetylene burners which must not be overlooked, although it is less liable to be the cause of trouble. This relates to the air-vent holes on either side of the burner-hole proper, which being of an appreciable size and slanting in direction, may be very easily cleared out if obstructed. Our object in referring to them at all is more for the purpose of drawing attention to their presence than with any idea of suggesting that they may form a likely seat of disturbance. Their object is to make sure of supplying sufficient air for mixing with the pure acetylene gas at the base of the flame.

If the tubing becomes choked up between the generator and the lamp, it is, of course, generally due to the accidental introduction of some foreign matter, which can be readily removed by air pressure. Occasionally water con-

denses there and causes trouble, and at other times little pieces of more solid substance find ingress in some extraordinary manner-probably when one or other of the ends of the tube has been disconnected. The most satisfactory method of removing the obstruction is undoubtedly to blow through the tubing by the aid of a tire-pump, and when we say the tubing we mean the tubing only, not the tubing and the burner, for there is no reason whatever to try and force the intruding substance, whatever it may be, out through a hole which is smaller than a pin-point. The tubing should be disconnected from the burner, therefore, and also from the generator, and it is convenient to have a short rubber connection available, so that the attachment of the pump ma ybe readily effected. In systems where it is intended to feed two lamps from one main pipe, it is also useful that some coupling or tap should be introduced.

Turning now to considerations affecting any particular type of generator, these will be governed to a large extent by its own particular form of construction; but, upon the whole, the principles to be followed are in all cases the same. The first thing to be done in any case is to carefully read and understand any instructions which may be stamped upon the various parts, as there are almost invariably one or two important points which it is very essential should not be overlooked. Among them, for instance, may be found one to the effect that an "arrow" and a "knob" have to be brought opposite to one another before the bayonet-socket fitting, which holds together the halves of the generatorchamber, is fastened. Often enough, however, we have found this injunction completely disregarded, with the not infrequent result that the parts have slipped out of engagement with one another while in use.

All the acetylene generators that are

used on motor cars operate upon the principle of feeding water to the carbide, not carbide to the water. But this principle is carried into effect in two different ways. One system is to let the water drip upon the carbide from above, and the other is to allow the water level to contact the carbide from beneath, through the perforated base of the chamber. Under the first system the generation of the gas may depend to some extend upon the hand regulation of the drip feed, but as the drip orifice itself is essentially contained within the carbide-chamber, there is also automatic control due to the back-pressure, exerted upon the water by the gas. In the second system the control is entirely automatic, and depends wholly on the gas pressure within the generator. the gas pressure rises, the water level in the "diving-bell" beneath the carbide box is depressed, so that it can no longer attack the carbide.

In this latter case there is nothing to be done in the way of attending to the water-feed, so far as its level is concerned, beyond observing that the water chamber is filled up to the proper mark, and that the "diving-bell," which is merely an extension of the carbidechamber, is not damaged in such a way as to be no longer water-tight. It is, of course, essential to shut the gas taps before lowering the "diving-bell" below the surface. With the drip-feed type of generator it is desirable to examine the needle-valve of the tap which regulates the drip, but reasonable care must be exercised in doing so, and on no account must they be dropped, or cleaned with a cutting substance like emery cloth. Being of brass, and in contact with water, the needle will have a dull, dark surface, and on being satisfied that it is clean, there is nothing more to be done beyond making a test to see if it properly shuts off the water supply when closed.

Two Typical German Motorists

A distinguished German motorist, Herr Wilhelm Opel, winner of the Prince Henry Tour, is now in this country, combining business with pleasure. He is accompanied by his wife, Frau Martha Bade Opel, a tall, typically handsome German woman, who takes

FRAU MARTHA BADE OPEL

as much interest in America and Americans as does her husband.

The firm of Adam Opel, of Russelheim, Germany, of which Wilhelm Opel is now the head, makes the well-known Opel cars, sewing machines and bicycles, and when interviewed concerning his impression of America, and the automo-

bile situation in Germany, Herr Opel had this to say:

"Germany, with all it's well-known makers, does not produce many automobiles per annum, and judging from what I have seen and heard here, there are more automobiles used in New York City and vicinity than in all of Germany. That, however, is to be expected, because your own good Dr. Holmes, the autocrat of the breakfast table, long ago said 'That Manhattan Island was a Tongue of Land that laps up the Cream of the Commerce of a Hemisphere.' I notice that here, as in Germany, one and two-cylinder cars are not popular; the four-cylinder car also leads all the rest in Germany."

The Opel party left New York for it's first stop at Buffalo and Niagara Falls, visiting while there the plants of the Pierce-Arrow and Thomas companies, stopping at Syracuse to see how air-cooled Franklins are produced, and then on to Detroit and Cleveland and other cities, to see how both the high-priced and popular-priced models and parts are produced in quantities. Herr Opel is not here for business purposes at all, with the exception of buying a large amount of American machinery for use in his shops.

His itinerary embraces a trip to the Yellowstone Park, the great fair at Seattle, to San Francisco and then back via the South to New York.

At Albany, N. Y., last week, the Fiels Equipment Company, of Brooklyn, was incorporated with a capital of \$100,000. It is organized to manufacture, operate, exhibit and sail airships, aeroplanes and balloons. The directors are Charles E. Miller, Beresford; W. D. Woodward, Brooklyn; George Bender, William A. Towner, Jr., New York; John P. Miller, Lake Hopatcong, N. J.



WEEKLY JOURNAL DEVOTED TO THE INTERESTS OF AMERICAN AUTOMOBILISTS.

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Ethics of the Road

That all motorists do not observe the courtesies and ameneties of the road is a fact that is only too apparent. Indeed, it is scarcely an exaggeration to say that some motorists—fortunately only a few—appear to be unaware of the existence of such a thing as the ethics of the road. They act as if the public highways belonged to them and they were entitled to use them for their own purposes and with a total disregard of others. It is this, more than anything else, that keeps alive the irritation of the public against motorists.

The sufferers by this lack of consideration comprise almost the entire community outside the small number of offenders-for the latter evince just as much disregard for fellow motorists as they do for non-motorists. They are a law unto themselves, and it never enters their heads to put themselves in other's places and think how they would resent such treatment, if they encountered it.

The motorist who is going along at top speed is naturally disinclined to slacken speed except for cause. It is true that if teams are kept in the middle of the road while their drivers doze or meditate, or if pedestrians get in front of them and pay little attention to insistent soundings of the horn, there is real reason for annoyance. But if they are delayed for unavoidable reasons it is a very different matter. Fractious or timid horses should not be permitted on roads frequented by automobiles; but when such a mistake occurs there is no reason

why the motorist should deliberately drive on regardless of the fact that he is rendering the horse unmanageable. To dash through the streets of a town or village at break-neck speed, scattering people and animals in every direction and leaving behind an enveloping cloud of dust, is an exhibition which the public could well be spared.

No careful driver will do these things. He knows too well the necessity of keeping his machine under control if he would escape accident. To take chances is a practice that he resolutely refuses to follow, and he is rewarded by a freedom from accidents that excite surprise among his friends who will drive recklessly.

If we turn to the motorist's offences against motorists, we find a very similar state of affairs. It is doubtful whether the adage "bear and forbear" is more universally observed anywhere than among users of motor vehicles. If one car is traveling faster than another the utmost punctiliousness is observed. The driver of the faster car, wishing to pass, will come up and blow his horn to signify that he wishes to go by; and the driver of the leading car will draw over to one side and permit the passage of his signaler. The one could pass without giving warning, and the other could lock the road and frustrate the efforts of the faster traveling car to pass, but such things rarely occur. The exceptions are the reckless drivers and those equally inconsiderate who regard themselves as entitled to the best of everything.

Good Roads an Economic Principle

Every indication points to a remarkable and widespread forward movement in the campaign for better roads. It is no longer the motorists who bear the brunt of the battle or work single handed for the furtherance of this end. If they are still foremost they now have able allies—allies who increase and multiply with a rapidity that is as astonishing as it is gratifying. Like the proverbial snowball that grows larger with each revolution, the good roads movement has grown until it has become nation-wide in its scope. Not only have classes who were formerly hostile to the movement—such as farmers—executed a rightface and become ardent advocates, but others who were once indifferent have awakened to the fact that here is a means of increasing material prosperity and of adding to the comfort and conveniences of the average person-and all procurable at an expenditure that, while it seems enormous in the aggregate, is really an investment rather than an expenditure. It is now known that every dollar expended for road improvements comes back, sometimes two-fold or three-fold, in property values and other means that are readily discernible and proveable. In short, road betterment has became an economic principle and is certain to be pursued in the future as a policy.

Good Roads Exhibit at the Alaska-Yukon Pacific Exposition

At the Alaska-Yukon Pacific Exposition, the good roads exhibit of the United States Department of Agriculture has attracted much attention. The exhibit, which was prepared by the office of Public Roads of the Department of Agriculture, is complete in every detail and unique in many ways. A feature of the federal government's contribution to the exposition are the striking examples in miniature of model roads, given in order that the visitor might not merely immediately appreciate the beneficent effects of perfected highways, but also be able to understand the methods of their construction.

Probably the most striking feature of the display is the miniature model of a section of Rock Creek Park—considered the most beautiful of the many breathing spots in the District of Columbia. In this handsome miniature is shown not only some of Rock Creek Park's most picturesque landscape features, but also some of the best examples obtainable of scientific road construction. The model includes the famous Bowlder bridge, the Pebble bridge and one other, with Rock Creek passing beneath them and winding in and out among the hills.

The miniature sections illustrating every type of road now in use probably appeal to the scientific road builder more than the picturesque exhibits. Among the types presented on view, built to exact scale, are macadam, bituminous macadam, tarred macadam, Telford, slag, asphalt, slag tar. oiled macadam, oiled earth, sand clay, burnt clay and dragged earth. There are approximately 1,975,000 miles of earth road in the United States out of a total mileage of 2,150,000.

The miniature of Rock Creek Park shows the relationship of roads and bridges to rugged topography. The

highways which cut the park are considered splendid examples of the roadbuilders' art, the grades being easy and the roadbeds surfaced with trap rock of the best quality. Bowlder bridge and Pebble bridge, which are shown in the model, are picturesque ornaments. Bowlder bridge, which fits harmoniously into the scene, being especially attractive in coloring, as it was constructed from bowlders picked from the bed of the stream. Of all the attractive features in Rock Creek Park, none is more pleasing than that section of the road which runs past Pierce's old vine-covered mill with its broken wheel and shimmering mill pond. For seven miles this road follows the tortuous windings of Rock Creek, each twist and turn revealing a new vista of wild and picturesque beauty. Passing from the gorge through which the stream flows, this road branches into others, which by slight detours and gentle inclines lead to high plateaus from which the stately Capitol may be seen in the distance.

There are also exhibited medals of the various kinds of road machinery used in the construction of roads and implements to keep them in repair as they become worn. The exhibit includes a crushing plant in operation, wheeled road scraper, road grader, elevating road grader and a macadam road with road roller in operation. The stone crushing plant is considered an indispensable adjunct to the building of first-class stone roads, if the work is to be well and cheaply done.

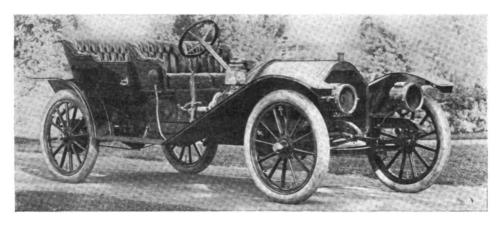
Two Grand Rapids, Mich., motorists and their wives recently completed a 2,000-mile trip through Ohio, New York, Pennsylvania and Indiana. Each of the men drove his own car and the trip, which lasted two weeks was made without mishap.

TRADE DEPARTMENT

Everett, Kelley and Metzger in New Company

Three well-known figures in the trade are the principals and officers in the Metzger Motor Car Company which filed articles of incorporation at Lansing, Mich., September 20. There are Byron F. Everitt, president; William Kelly, vice-president, and William E. Metzger, secretary and treasurer, respectively, of the company, which is or-

About thirty days ago the new company purchased the plant of the Jacob Meier Company, trunk manufacturers, located at Milwaukee Avenue and the Grand Trunk R. R. This plant is an ideal one, having been built several years ago; it is well located for the automobile business and occupies two and one half acres of ground. The



NEW METZGER MOTOR CAR COMPANY'S TOURING MODEL

ganized with a capital of \$500,000, of which \$300,000 is paid in.

The company will manufacture a new car designed by William Kelly, a runabout and a five-passenger model to be sold at a popular price. This new car has been on the streets of Detroit for some time and has met with the approval of motorists who have seen and ridden in it.

plant is located between the East Boulevard and the Detroit White Lead Works at the viaduct. Additional buildings have already bee ndecided upon.

The machinery is being installed and the company will commence delivery of its new product within ninety days. It is expected that during the year 1910 at least 5,000 automobiles will be manufactured by this concern.

To Make Commercial Cars in Spokane

Oregon capitalists have incorporated the Spoke Motor Car Company, with a capital stock of \$600,000, and will build in Spokane a large factory for the manufacture of commercial automobiles. About 150 men will be employed when the factory is opened. The product will be a strictly commercial motor truck propelled by a gasolene motor, with power applied direct to each of the four wheels. A turntable device enables the truck to turn within its own length. More than \$40,000 and three years of work have been spent in perfecting the car, which will be made in varying sizes from a half-ton to seven tons capacity. They will be 50 hp. machines, and the largest size will cost \$4,500, and will be 17½ feet long.

The company's officials are W. E. Funkhouser, of Portland, president; Edward Schulmerich, of Hillsboro, Ore., vice-president; F. M. Skiff, of Portland, secretary; A. L. McLeod, Portland, treasurer; and Thomas Bilyeau, Portland, general manager.

To Double Output of Baker Electrics

Baker electrics will be produced in greatly increased numbers next year, the Baker Motor Vehicle Company having decided to double their output. The news was given out this week by R. C. Norton, secretary and treasurer of the company, who said:

"Our 1909 output far exceeded that of any previous year, and though we have been working full force day and night, even during the dull summer months, we have been unable to fill orders. The popularity of electrics has been growing steadily for years, and during the past year there has been a remarkable increase in the demand.

"Reports from our agencies all over the country indicate a complete return of prosperity next year, and in view of our inability to fill orders during the 1909 season, he have largely increased our facilities and doubled our output for 1910.

"One evidence of good times to come is the rush for agencies. We are establishing agencies in territory where there was no demand for electrics a year ago. Motorists are looking for flexibility in motors, just as in everything else—a car that will do for everyday use in the city and suburbs. The modern electric, with large increased mileage, low cost of maintenance and ease of operation, fills every requirement of city and suburban residents. The dealers are waking up to the situation."

New Brooklyn Connection for Rambler

A new connection has just been established by Thomas B. Jeffery & Company, makers of the Rambler, with the Kenny Motor Car Company, of Brooklyn, by which this concern will act as distributers of the new Rambler.

The Kenny Motor Car Company has purchased the valuable corner property at Sterling place and Bedford avenue, Brooklyn, where a modern building, including garage and show rooms, will be erected immediately. Messrs. William F. and A. T. Kenny are the active members of the firm.

William F. Kenny has been connected with the New York Edison Company in an official capacity, is president of the Hickey Construction Company, the New York and New Jersey Company, and the Ken-Well Contracting Company.

T. A. Kenny is proprietor of the Monroe Express Company.

Is Now the Willys-Overland Company

INDIANAPOLIS, Ind., Sept. 21.—The Overland Automobile Company has reorganized under the name of the Willys-Overland Company. In reorganizing the capital stock was increased from

\$800,000 to \$1,500,000, the increase being made to care for the purchase of the Pope-Toledo plant at Toledo, O., and the improvements that have been made at the local plant.

Good Quality Inner Tubes Save Casings

There are certain motorists who buy a good make of tire for their cars, but who, when inner tubes wear out, instead of purchasing new ones of a standard make, or of the same make, they shop around among auction stock dealers and fly-by-night concerns and buy cheaper tubes of an inferior quality. These car owners seem to be under the impressing that as long as they have a first class casing that should wear well, the inner tube is an item of minor consideration. In the opinion of the makers of Fisk tires, however, this is a most foolish thing to do, for while an owner may find that he can save a small amount of money at first, he sooner or later discovers that it does not pay in the long run. The chances are 10 to I that the life of the casing will be shortened, for its life depends upon the inner tube much more than people imagine.

The cost of pure Para rubber is high and manufacturers cannot afford to sell standard tubes below a certain price now current on the market. To make tubes cheaper it is necessary to use less pure gum and the quality of the product is, of course, poorer, and deteriorates quicker. Tubes are worn by friction of the air inside of them, which is said to circulate in the opposite direction from that in which the wheel is revolving. This is more often the cause of tires overheating than the actual friction of the outer shoe with the road surface, and heating and friction will damage a tube of poor quality and cause it to harden and rot much quicker than one of pure elastic rubber.

But where the real folly of cheap inner tubes comes in, is that when they wear themselves out and rip or burst, the car is consequently driven some distance before the flat tire is noticed, and both fabric and vegetable compound of the casing is damaged. Frequently tires, with the exception of those such as the Fisk bolted-on type, are thrown from the rim, endangering the occupants of the car. With a tube of good quality, this is not as liable to happen, for while they wear down in long service, they do not "dry up" and harden.

Cheap tubes are also frequently found to be fitted with cheap valves, which soon begin to leak—not a great deal, perhaps—but enough to cause damage to the casing, for improper inflation is the cause of 90 per cent. of tire ills. Drivers sometimes squirt oil into valves to make the spring work better, but this is a bad thing to do, for oil very quickly ruins the rubber section of the valve-seat and plunger.

Another point wherein the cheap tube is found unprofitable, is that when it is patched after being punctured, the repair is never equal to that which can be made on a tube of good quality, for cheap stuff will not stand the heat of vulcanization. Motorists soon find out that cheap inner tubes are a poor investment, and while second-hand dealers and auction stock men may not coincide with this view, the man who has tried to economize thus, will.

Biggest Building in Akron

Among the several new buildings added to the plant of the Diamond tire factories at Akron, O., this year, is one distinguished as being the largest structure in that city. This building is 371 x 103 feet and six stories in height. Its floor space is practically double the area of a "three acres and liberty" farm. Steel construction is used throughout, but for the floors alone one and one-half millions feet of lumber will be used.

An addition to the offices, which will also house a company restaurant, is another of the new Diamond buildings.

Tradesmen Battle at Outing

After several interruptions and disagreements between the umpire and the players, the baseball game which was the star feature of the first annual outing and field day of the New York Automobile Trade Athletic Association, held at New Dorp, Staten Island, N. Y., on Sunday, September 19, was brought to a successful conclusion.

The baseball game was for the championship of the association, and the winner obtained the cup offered by William Interridien. The victors were the team of the Republic Rubber Company, which won from the Pierce-Arrow team by a score of 19 to 6. Besides winning the Interridien Cup the winning team was awarded the \$100 shield offered by a chauffeurs' organization.

Although the half dozen athletic events were closed to members of the association, there were enough entries in each contest to make it interesting. The individual honors of the day were won by W. Flynn, of the Diamond Rubber Company, who finished first in three events, the 100-yard dash, the running hop, step and jump, and the twelvepound shot put. Close behind him in the matter of points scored was J. Ryan, of the General Tire Repair Company, who had one first and three second prizes to his credit. The half-mile-run was won by W. Allen, of the General Tire Repair Company, while H. Johnson, of the Packard Company, won the sack race. The other events were won by Ryan and Flynn.

Pelletier's Memory Came Back in Gulf of Mexico

When it comes to springing an entirely new "stunt," it is pretty safe to depend on Le Roy Pelletier being right in the game. An incident which occurred recently illustrates this faculty. In company with Mrs. Pelletier, the well-known advertising manager of the Studebaker Automobile Company, was trying to steal a few days away from business, and part of the plan was a trip by the steamship Antilles from New Orleans around to New York. On the second day out, when in the middle of the Gulf of Mexico, it occurred to the publicity man that he had forgotten to pre-

pare copy for a full page advertisement he had ordered inserted in a large list of papers. Not to be thwarted by any untoward conditions, he wrote the copy and then transmitted the 1,500 words, together with instructions as to illustrations and composition, by wireless to Key West, Fla., from when it was forwarded by mail to the various journals.

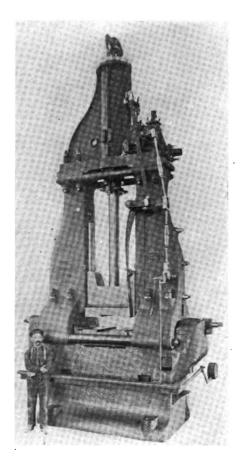
This is believed to be the first case on record where the wireless has been used to transmit a lengthy advertisement, although Thomas W. Lawson is said to have used the telegraph lines on one or two occasions for a similar purpose.

Helping Dealers in Shipment Matters

In order to give dealers throughout the country the fullest benefit of its work, the National Association of Automobile Manufacturers, Inc., has notified dealers that if they will communicate with the traffic department, 7 East 42nd Street, New York, they will be given full information on any matters pertaining to shipments of automobiles. This will include advice as to correct freight rates, and the collection, without charge, of claims against railroads for overcharge in freight, or for loss and damage. The Executive Committe of the National Association has directed that automobile dealers be notified.

Factory Equipment of Great Size and Weight

In the equipment of the modern automobile factory special machinery is used of extremely massive construction and enormous weight. In the plant of Thomas B. Jeffery & Company, makers



THE GIANT FORGING HAMMER

of Rambler automobiles, for example, there has just been installed a giant forging hammer for making all crank shafts, connecting rods, front axle yokes and other heavy forgings.

The anvil block of this hammer alone weighs more than the average tenroom, two-story frame house. It has a falling weight alone of 3,500 lbs., mak-

ing it capable of striking a blow of approximately 15,700 pounds. The anvil block weighs 70,000 lbs., and the total weight of the hammer is 98,000 lbs.

This press has been set up on a foundation of solid concrete sixteen feet deep and fifteen feet square, with cushions consisting of oak timbers.

In addition to this a 500-ton drawing press for the shaping of brake drums, clutch cones and other heavy drawn steel parts, has been installed. This press weighs 60,000 lbs.

Average High and Figure on that Basis

"I have had my money's worth from this tire, and although it isn't worn out, I'm hanging it up in my garage," wrote one user to the Diamond Rubber Company. It sounds almost unreal, yet the practice indicated is not infrequently followed by wealthy motorists.

"The idea is absolutely wrong," said Theodore Weigele, head of the Diamond Rubber Company's tire department. "It is the average service the tire user obtains which must measure his aggregate mileage cost. No two tires, by any human combination of circumstances, can encounter precisely the same conditions and it is inevitable that the mileage life of the best constructions will vary. It is then, the grand average that should be reckoned with.

"It is not unusual for a tire to give 10,000 miles or more, but it is the motorist's duty to extend that service as much as circumstances and safety permit. He does not know what severe accident or succession of hardships the next tire may encounter, to shorten its service; and this through no fault whatever of the tube or casing, or even himself. He should make his average high and figure cost on that average."

Selden Patent Litigation Probabilities

Discussion of the effect of the decision of Judge Hough of the United States Circuit Court in sustaining the Selden patent has been very general since the finding was made public early last week. What the next step will be no one can tell. General Manager Alfred Reeves of the American Motor Car Manufacturers' Association came out with a statement to the effect that his organization was affected only so far as would naturally follow from the fact that one of its members, and a very large and influential concern, was directly affected by the decision.

The statement given out by Henry Ford, which appeared in these pages last week, merely confirms the general belief that the case will be appealed to the higher, and probably the highest, courts. This means prolonged litigation and the probable lapse of years before a final decision can be handed down.

In Association of Licensed Automobile Manufacturers' circles, however, the opinion prevails that the decision will have a marked effect in the direction of restricting productions next year. In this connection Herman F. Cuntz, of that association, said:

"The idea of jumping the production of motor cars from 80,000 to 200,000 machines, as is proposed next year, is such a foolish proposition from an economic standpoint that it would ruin the industry, and for this reason, if for no other, the decision will do incalculable good, as it will prevent a lot of ill-advised peope from rushing into the business.

"The sustaining of a pioneer patent like the Selden patent can only result in great good to the industry by holding this tendency to overproduction in check. The exercise of this monopoly in the automobile field can only work to the good of the industry as a whole. "The formation of the Licensed Association put the control of this pioneer patent in the hands of a large number of the most experienced and practical men in the business. This means that the best judgment and a reasonable exercise of the broad basic right under the patent is assured. In this respect it differs materially from the history of many patent cases where a broad patent has been controlled by an individual or single corporation.

Asked what was likely to be the next step, he said:

"The usual procedure in suits of this sort will now follow. We will enter the formal decree and apply for an injunction against the defendants in these particuar suits. There are numerous other suits pending in the same court, and it is reasonable to assume that similar decrees sustaining the patent will be entered against them. The courts have power to permit the filing of a bond while the suit is awaiting a decision on appeal, if the defendants decide to appeal.

Detroiters Discuss Next Year's Show

Detroit tradesmen held a meeting in the Mayor's office last week at which next winter's automobile show was discussed. It was decided to appoint a committee of three, to be named by Mayor Breitmeyer, to confer with the Board of Commerce for the purpose of securing that body's co-operation.

The General Motors Company has filed with the New Jersey Secretary of State an amended certificate increasing its capital stock from \$12,500,000 to \$60,000,000. Of this amount \$40,000,000 is to be in common stock and \$20.000,000 in preferred stock, the latter bearing 7 per cent. cumulative dividends.

White Goes With A. M. C. M. A.

W. McK. White, a former well-known and well-liked Philadelphia newspaper man, has gone with the American Motor Car Manufacturers' Association. He will act as one of Manager Reeves' right-hand men in the management of the Tenth International Show, which opens in Grand Central Palace on New Year's Eve.

Another addition in the office staff of the A. M. C. M. A., is W. D. Hardy, of New York.

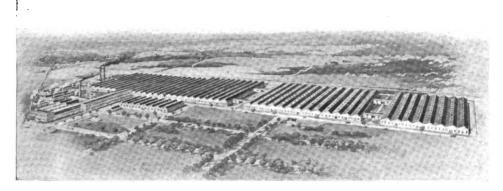
Premier Agents Meet at Indianapolis

Indianapolis, Ind., Sept. 20. — Agents of the Premier Motor Manufacturing Company, from all parts of the

country, are meeting here this week. Tomorrow night they will be entertained with a banquet at a local hotel, while on Wednesday and Thursday they will make a run to French Lick Springs and return.

Canadians Want Winton Cars

George W. Miller, Seattle manager for the Winton Company, has received a special summons from the Canadian government at Quebec to appear before the government officials at Vancouver, B. C., to present information in detail and quote prices on three Winton Six cars for use by the Canadian government officials.



THE NEW RAMBLER FACTORY-20 ACRES IN EXTENT

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INDEX TO ADVERTISERS

Lamps-

Automobiles (Electric)—
Baker Motor Vehicle Co
Studebaker Automobile Co 1654
The Waverley Co
Woods Blotol Vehicle Co
Automobiles (Gasolene)-
•
Chalmers-Detroit Motor Co
Herreshoff-Harry S. Hount Co
Hudson Motor Car Co
Hudson Motor Car Co
Locomobile Co. of America
Matheson Motor Car Co
Mitchell Motor Car Co
Palmer & Singer Mfg. Co
New York to Boston Tour 1088
The Pierce-Arrow Motor Car Co Inside Back Cover
Renault Freres Selling Branch
The F. B. Stearns Co. Stevens-Duryea Co.
Studebaker Automobile Co
Studebaker Automobile Co
Winton Motor Carriage Co Inside Front Cover
A
Automobiles (Steam)—
The White Company Back Cover
LaneLane Sales Co
5 •
Batteries-
Stanley & Patterson 1653
•
Bodies-
Springfield Metal Body Co 1718
Auto-Rebuilding Co 1719
Champagnes
Pommery
·
Electric Welding-
Standard Welding Co
•
Eve Tonic-
Murine Eye Remedy Co
Mullic Eye Remedy Co
Fenders
Auto-Rebuilding Co
Graphite—
Joseph Dixon Crucible Co
Ignition Devices—
A. R. Moeler & Co
Bosch Magneto Co 1658 C. F. Splitdorf 1719
Eisemann Magneto-Lavalette & Co
J. S. Bretz & Co
T.
Instruction-
Correspondence School of Motor Car Practice 1719

The R. E. Dietz Co	1658 1 659 1716
Leather	
The Pantasote Co	
Lubricants-	
Columbia Lubricants Co	1717
Joseph Dixon Crucible Co	1718
Magnetos-	
Bosch Magneto Co	1658
Elsemann MagnetoLavalette & Co	1716
J. S. Bretz Co	1661
Oils	
Columbia Lubricante Co	1717
Parts-	
Billings & Spencer	1719
Standard Welding Co	
Photo Engravers— Sterling Engraving Co	1717
Road Binder	
Robeson Process Co	1719
Seats Auto-Rebuilding Co	1719
Second-Hand Dealers— Times Square Auto Co	1715
Shock Absorbers—	
Bi-Cal-Ky Auxiliary Spring Co	1719 1719
Signalling Devices—	
Nightingale Whistle Co	1719
Spark Plugs-	
A. R. Mosler & Co	
Timers—	
A R. Mosler & Co	1717
Tires—	1719
Ajax-Grieb Rubber Co	1719
Diamond Rubber Co	1716
Morgan & Wright. Republic Rubber Co	1717 1719
Tire Grips—	
Weed Chain Tire Gito	1716
Тора—	
Sprague Umbrella Co	1719
Travel—	
Detroit & Cleveland Navigation Co	1661
Wind Shields—	4800
Sprague Umbrella Co	1719



News Notes

For the Star Tour, which started September 20, from Kansas City. Mo., a handsome trophy, to be known as the Ajax Cup, has been offered by Horace De Lisser, president of the Ajax-Grieb Rubber Company. The cup will be awarded to the contestant in the runabout division in either



the dealers' or owners' class, who crosses the finish line with the best score. The tour, which will last five days and cover a distance of 675 miles, making stops at Junction City, Kan.; Lincoln. Neb.; Omaha, St. Joseph, Mo.; and returning to Kansas City, is greatly interesting the Middle West, and while it is not a very long affair, will prove a strenuous one.

About October I A. S. Holden, until this time assistant sales manager of the F. B. Stearns Company, assumes the position of Western manager, with headquarters in San Francisco, his territory extending from Salt Lake City to the Coast, and from the Northern to the Southern boundary of the United States. In his new position Holden will have charge of the Stearns business in the territory mentioned, working directly with the factory. His headquarters will be at 1220 Van Ness Avenue, San Francisco, Cal.

J. Stewart Smith is no longer the manager of the Standard Sales Company, which has been handling the Fry Plug at 1983 Broadway, but has organized a selling agency for a number of automobile specialties at the above address.

The Columbia Garage of Spokane, Wash., will represent the Winton Motor Carriage Company in Spokane and vicinity during the season of 1910.



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East Orange, N. J.—Jones Taximeter Company of the Southwest with \$10,500 capital. Incorporators: Charles O. Geyer, Frank E. Ruggles and Gaston G. L. Valle.

Wilmington, Del.—Reservation Oil Company, with \$200,000 capital. Incorporators: James Virdin, James H. Hughes and E. A. Bice.

Newark, N. J.—Motor Service Company, with \$100,000 capital. Incorporators: Harvey L. Lechner, Doering Bellinger and W. G. Jones.

Wilmington, Del.—The Leech Automobile Company, with \$500,000 capital. Incorporators: Charles A. Bliss, John P. Le Fevre and Charles H. Le Fevre.

Troy. N. Y.—The Wright-Rye Motor Company, with \$40,000 capital. Incorporators: William D. K. Wright, William H. Rye. Elbert E. Grant, and George A. Hubbard.

Dover, Del.—Anti-Friction Wheel Company of Pittsburg, with \$150.000 capital. Incorporators: Thomas Bernston, George D. Williams and George L. Lothamer.

Wilmington, Del.—Di Fabio Double Power Bicycle Company, with \$100,000 capital. Incorporators: E. J. Forhan, H. M. Browne, and J. J. Harper.

Detroit. Mich.—Krit Motor Company. with \$100,000 capital. Incorporators: B. C. Loughlin, W. S. Higgins, Claude S. Briggs, Kenneth Crittenden, and C. W. Whitson.

Vicksburg, Miss.—The Vicksburg Automobile Company, with \$10,000 capital. Officers: J. H. Hempen, president; F. E. O'Neil, vice-president-president; A. J. Martin, treasurer: Lee Richardson, secretary and treasurer; B. J. Reid, secretary.

Defiance, O.—The Defiance Screw Machine Products Company. Incorporators: William Geiger, Mrs. William Geiger, John Schragg, Mrs. John Schragg and Sidney Thompson.

Jersey City. N. J.—Bergen and West Side Motor Car Company, with \$100,000 capital. Incorporators: C. E. Collard, M. L. Collard, and B. D. Sparks.

Mention "Automobile Topics" when writing.

Automobile Calendar

September 21-29.—Frank A. Munsey reliability tour from Washington to Boston and return.

September 24-25. — Twenty-four hour race and short distance events, Indianapolis Motor Speedway.

September 24-25.—Third twenty-four hour race at Brighton Beach, New York, under the direction of the Motor Racing Association.

September 24-October 3.—Aeroplane meeting at Lyons, France.

September 24-25.—Twenty-four-hour race at State Fair Park, Milwaukee, Wis., under direction of Milwaukee Automobile Club.

September 25-October 8.—Aeronautical events in connection with the Hudson-Fulton celebration, New York.

September 30.—Floral Automobile Parade, under direction of the Washington, D. C., Automobile Club.

September 30-October 8.—Exhibition of aeronautic motor engines at Paris.

October 2-17.—Aeronautical Salon in the Grand Palais, Paris, France.

October 4.—Dirigible balloon and aeroplane events, under the direction of the Aero Club of St. Louis.

October 8-9.—First annual reliability and economy contest of the Louisville (Ky.) Automobile Club.

October 8-9.—National automobile race, Inquai apolis Motor Speedway.

October 9.—Second annual stock chassis race in Fairmount Park, Philadelphia, under the auspices of the Quaker City Motor Club.

October 9-24.—Aeroplane meeting at Marseilles, France.

October 16-31.—Automobile Show, to be held in City Park Armory at Atlanta, Ga. Auspices of National Association of Automobile Manufacturers. Samuel A. Miles and Alfred Reeves, managers, 7 East 42d Street, New York. Mica Type, Magneto Type for the Asking



Owners of Mueller and Canfield Patents.

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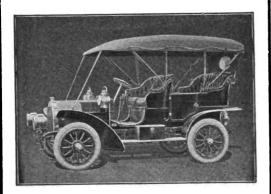
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Maps before beginning your tour

- October 15, 16, 17.—Three-days of aviation contests at the Indianapolis Speedway grounds.
- October 18-30.—First Automobile Show in Dallas, Tex., under auspices of Dallas Automobile Dealers' Club.
- October 23.—Road Race at San Francisco, Cal..
 under auspices of the Automobile Club of
 California.
- October 28-30.—Three-days' race meet in Dallas, Tex.
- October 30.—Vanderbilt Cup race on Long Island under the auspices of the Motor Cups Holding Company.
- November 22.—Start from Denver, Colo., of the Flag-to-Flag reliability run.
- December 29-30.—Fourth Annual Mid-Winter Endurance Contest, under direction of the Quaker City Motor Club.
- December 3t-January 7.—New York City. Grand Central Palace, Tenth International Automobile Show. Under the management of the American Motor Car Manufacturers' Association with the Importers' Automobile Salon and the Motor and Accessory Manufacturers. Alfred Reeves, general manager, 505 Fifth Avenue, New York City.
- January 8-15.—Tenth Annual National Automobile Show in Madison Square Garden, New York, under the auspices of the Association of Licensed Automobile Manufacturers.
- February 5-12.—Ninth Annual National Automobile Show in Chicago, under the auspices of the National Association of Automobile Manufacturers.

February 22-26.—Fourth annual Automobile Show in Convention Hall, Kansas City, Mo.

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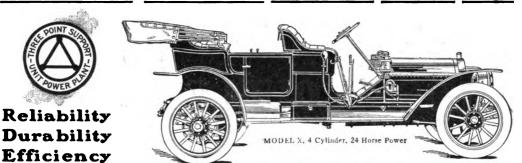
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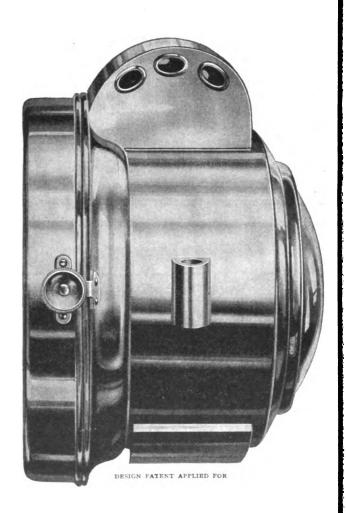


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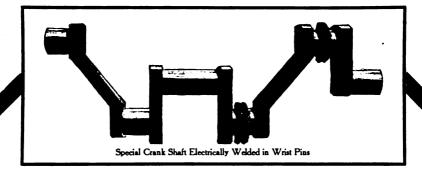
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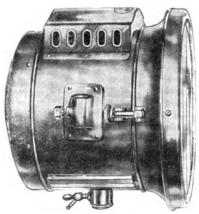
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5 sizes: LensMirrors, 5 in. to 9 in.
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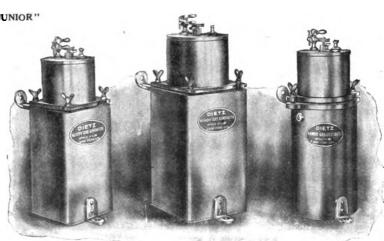
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At Indianapolis Strang in a Buick car, using an EISEMANN MAGNETO, made 100 miles in the remarkable time of 92 minutes.

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TELEGRAM

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My buick with which I made the hundred miles in Ninety two minutes at indinapolis was equipped with eisemann Magneto Lewis Strang

Also in the National Stock Car Races---

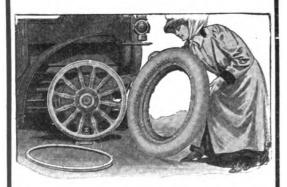
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The Fisk Removable Rim

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Are absolutely safe—can't be wrenched off—and are changed in from 1 to 3 minutes.

We guarantee Fisk Bolted-On, Clincher and Q. D. Tires only on rims bearing inspector's stamp shown herewith.



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Solar Lamps are standard.

Over 20 American car builders use them.

amps that excel in beauty--efficiency.

A lways dependable — never out of order.

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All epoch making Aeronautic and Aviatic records are fhade with Bosch Magnetos

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NEW YORK CITY

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Vol. XVIII.

NEW YORK, OCTOBER 2, 1909.

TABLE OF CONTENTS

No. 26.

With the Munsey Tourists-An American Simplex Car Near Bridgeport, Conn.	PAGI
Frontispiece	1732
Topics	1733
Chevrolet Makes 70 Miles an Hour in Long Island Race	1735
Row Over Rejected Entries in Philadelphia Race	1737
Row Over Rejected Entries in Philadelphia Race	1738
Sanction for Vanderbilt Race is Granted	1730
Five Days of Racing at Atlanta	1740
Five Days' Run for Kansas City Motorists	1741
Munsey Tourists Finish 1.283-Mile Run	1742
Aeronauts Perform for Hudson-Fulton Crowds	1745
Race Across the Continent is Re-Started	1746
Accessory Makers Take 7.000 Feet of Space	1747
Yoakum Tourists Finish Inspection of Good Roads	1748
Climbing Up Mt. Ventoux	1740
Properties of Glutrin, a Road Preservative	1750
Second Annual Good Roads ConventionIllustrated	1751
Automobile Topics Touring Supplement-New York to Burlington, Vt. First Sec-	
tion—New York to Bennington	1753
Dr. Cook and the Motor Boat	1762
One Club's Map Making and Sign Posting Work	1766
Getting After Philadelphia Joy Riders	1767
Acetylene Lamps and Forms of Carbide	1768
A Californian's Impressions of Europe	1770
Keeping Cylinders Too Cool	1771
Does the Public Want Road Racing	1773
Work for the A. A. A Editorial	1774
Attacking the Joy Riders from Another QuarterEditorial	1774
Spark Plug Maker Starts Litigation	1776
One Million Bricks in One Factory Building	1776
Fine New Woods Garage Opened in Philadelphia	1777
Premier Agents Try 1010 ModelsIllustrated	1778
Special Headquarters for Pierce-Arrows	1779
Patrol and Ambulance for Pennsylvania's Capital	1780
Index to Advertisers	1782
News Notes	1783
Incorporations	1784
Automobile: Calendar	

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THE AUTOMBILE USERS' WEEKLY

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No. 26.

TOPICS

"We are not wasting time on aeroplanes and gas bags, but are developing submersibles and wireless." Such is the remark ascribed

to Lord Northcliffe, the British publicist, who predicts war between Germany and Great Britain in the near future. The fling at gas-bags is not entirely unwarranted. They are little more than a forlorn hope, when it comes to serious matters like war—and this notwithstanding the attention paid to Count Zeppelin's creations by the Germans. But to sneer at and belittle aeroplanes, to endeavor to class them with balloons, is quite a different matter. If war came to-morrow, the aeroplane might prove a formidable weapon. Its uncertainty would, in a way, add to its chances of accomplishing incalculable damage upon an enemy, for the latter would be very likely to under-estimate it and fail to prepare to meet its attacks. But the aeroplane belongs to the future, and the country which overlooks it, and the statesmen who belittle and decry it, are short-sighted in the extreme.

Automobiles played their part in the big Hudson-Fulton celebration which has been monopolizing New York and New Yorkers this week. It seemed as if every available car in the city and its surrounding territory had been pressed into service to accommodate the great demand for motor transportation, and even then the supply did not equal the demand. During the naval pageant on Saturday Riverside Drive was jammed with cars of all descriptions, while all along the route machines were lined three and four deep. During the illumination of the battleships Saturday night the same conditions prevailed. Walking along Riverside Drive and upper Broadway, one would think he was at the scene of the Vanderbilt Cup race, or some other big motoring event, so many were the cars along those highways. The cars presented a picturesque appearance in their gaudy colored flags and decorations, while the carnival spirit of the crowd added to the gayness of the occasion. The taxicab companies could not handle all the calls they had for cars, and as early as nine o'clock many of the concerns were entirely out of machines.

All the reserve Fifth Avenue motor 'buses were carrying passengers up and down the brilliantly illuminated avenue. The sailors from the battleships took a fancy to the taxicabs, and it was not an unusual thing to see three or four wide-trousered seamen riding around the illuminated section of the city, apparently having the time of their lives.

There was a very decided difference of opinion among the delegates to the Good Roads Convention as to the merits of State control, on one hand, and control by the counties and towns. It is a question upon which opinions will naturally differ, and there is much to be said upon both sides. Because our present, or our recent, deplorable condition in the matter of improved roads was due, to a considerable extent, to the lack of a central authority and direction, to the prevailing system of letting each of hundreds or thousands of municipalities, boroughs, etc., muddle things according to their liking, we are apt to go to the other extreme and declare ourselves in favor of a centralized system of control, and even of taking away from the small communities any voice in the matter. To cut these communities out altogether is a mistake. They are vitally interested in the matter, and as they have to pay part of the cost of good roads they should have some say.

If you happen to be somebody in motoring circles you have doubtless received an invitation to attend the private time trials and opening to automobiles of the old Guttenburg race track, just across the river from New York. These invitations bear the imprint of the Palisade Automobile Association, the secretary of which holds forth on Bullsferry Road, Weehawken, N. J. The notation that luncheon will be served almost renders superflous the hint that a prompt acceptance is desirable.

Even yet weather cuts considerable figure in aeroplane flights—vide the Hudson-Fulton celebration this week.

At the Cleveland Good Roads Convention the fact was brought out by ex-Governor Bachelder that eighteen States "have no highway commission, make no annual appropriation for road construction or maintenance, have no issued bonds for this purpose—in fact, have no system of State roads. The States which have this unenviable distinction are Tennessee, Georgia, South Carolina, Nevada, Wyoming, Kansas, Kentucky, Florida, Mississippi, North and South Dakota, Montana, Alabama, Indiana, Texas, Wisconsin, Oklahoma and Nebraska.

Do people really approve of road racing—or, rather, of speeding on the public highways? This is an interesting question that has been brought up in view of some recent events. The answer is awaited with interest.

The good old adage about doing a thing with all one's might is brought to mind by the splendid efforts of a publicity man who is doing his best to inform people about a certain "stunt." "When this affair comes off," he says, "the indications are that there will be an array of automobiles that will eclipse the majestic line of warships now in the Hudson River, and show that the march toward peace and progress surpasses that which tends towards the other extreme."

Chevrolet Makes 70 Miles an Hour in Long Island Race

In the presence of only a few thousand spectators, and under conditions not the most favorable—it having rained shortly before—the road race, termed the Long Island Stock Chassis Derby was run on the Riverhead-Mattituck course on Wednesday, September 29, the fastest time being made by Chevrolet in a Buick. Entered in Class 4, cars selling from \$1,250 to \$2,000, Chevrolet covered 113¾ miles in 97 minutes and 36 seconds, an average of more than 70 miles per hour.

The Hudson-Fulton celebration and the comparative inaccessibility of Suffolk County, where the race was held, combined to keep down the attendance. The 22.75 miles course was still wet and the start delayed for half an hour. Consequently, it was not until 9 o'clock that Starter Wagner sent the first car away. Louis Disbrow, driving one of the Rainier entries in Class 1, for cars costing \$4,001 and over, was the first to cross the mark. George Armstrong, driving G. W. Loft's Mercedes, that was formerly owned by W. K. Vanderbilt, Ir., was the next to be started, and the other cars followed in this order: Fiat (De Palma), Apperson (Lytle), Rainier (Lund); Class 2, for cars selling from \$3,001 to \$4,000, American (Hughes), Palmer and Singer (Lescault); Class 3, for cars selling from \$2,001 to \$3,000, Sharp Arrow (Sharp); Class 4, for cars selling between \$1,251 to \$2,000, Chalmers-Detroit (Droge), Buick (Chevrolet), Buick (Burman); Class 5, cars selling between \$851 to \$1,250, Maxwell (See), Buick (Finck), Maxwell (Doorly), Maxwell (Costello) and Overland (Reiss).

The twenty-two mile course over which the race was run had the starting line on Roanoke Avenue, and then ran through Riverhead, Abuebogue, Jamesport, Laurel, Mattituck, West Mattituck, Northville and Centerville, where the turn into the home stretch, Roanoke Avenue, was made. Shortly after the last of the small cars was sent away, the familiar cry of "Car coming" was heard, and Armstrong, in the Mercedes, flashed across the line, after completing the 22.75 miles in 19 minutes 20 seconds, the fastest time for the first round. Armstrong had passed Disbrow's Rainier. Then De Palma's Fiat flashed past the grand stand, and in quick order the Palmer-Singer and Buick sped along.

From the start the speed possibilities of the course were recognized, for several of the cars negotiated the course, from a standing start, in better than a mile-a-minute average on the first round. Burman and Chevrolet followed close after Armstrong for elapsed time for the first lap, the former's time being 19.56, while the Cobe Cup winner covered the circuit in 19.43.

It was during the first round that Lytle met with an accident. He was the fourth driver to be sent away, and successfully negotiated the dangerous right turn in the main street of Riverhead and the hair-pin curve at Mattituck. Shortly after making the hair-pin turn, for some unknown reason, the car, while going at a speed of about 65 miles an hour, swerved off the road near West Mattituck and crashed into a tree. Bates, the mecanicien, was hurled against the tree and sustained a fractured skull, a broken arm and leg and broken ribs. He died half an hour after the accident without regaining consciousness. The impact of the collision threw Lytle out of the car and he landed in sand, being knocked unconscious. Lytle's injuries were later declared to be principally concusion of the brain and severe bruises. The car was totally wrecked, but remained in an upright position.

When the report of Lytle's mishap reached the grand stand it put a damper on the spirit of the crowd gathered there. The Buicks were leading in time from the start. Around the half-way mark Chevrolet drew away, and, going through his five laps with practically no stoppages, registered an average that greatly surpassed the fastest time made at last year's Grand Prize and Vanderbilt Cup race.

In the Class I race, which required the cars to go ten laps of the circuit, or 227.5 miles, the Mercedes, driven by Armstrong, went into the lead on the Disbrow got started in the first lap. next round and completed that lap in leading position on elapsed time, with the Mercedes acting as runner-up. De Palma was third, while Lund, in the second Rainier, was running in last position. Armstrong was back in the lead on the next trip around, and remained there until the fifth lap was reached, when De Palma went to the front and secured a lead of nearly eighteen minutes on him. De Palma from that time on was never headed, and Armstrong withdrew on the sixth round while running in second place. De Palma finished the 227.5 miles in 3 hours 38 minutes 35 6-10 seconds, or at an average of 62.05 miles an hour.

Frank Lescault, in the Palmer-Singer in Class 2, for cars selling from \$3,001 to \$4,000, led the American, driven by Hughes, the only other entrant in the class, from the start and finished the 182 miles it was required to cover in 2 hours 59 minutes 4 seconds, an average speed of a trifle under 61 miles an hour.

W. H. Sharp, driving a Sharp-Arrow, was the only starter in Class 3, open to cars selling from \$2,001 to \$3,000. He finished the distance for his class—136.5 miles—in 2 hours 9 minutes 2 seconds, or at an average speed of 63 miles an hour.

Class 4, for cars selling from \$1,251 to \$2,000, was virtually a Buick event, for Burman's and Chevrolet's cars outclassed the Chalmers-Detroit, driven by Droge, from the start, and Chevrolet finished the 113.75 miles in 97 minutes 363-10 seconds. Burman was second in 1 hour 46 minutes 22-10 seconds.

In the class for cars selling from \$851 to \$1,250, Arthur See, in a Maxwell, finished the 91 miles the cars of his class were required to go in 1 hour 41 minutes 22 seconds, an average speed of 54 miles an hour. See led his class from the start. Finck, in a Buick, finished second.

During the early part of the race, one of the most thrilling spectacles ever witnessed at such a contest occurred. Shortly after Louis Disbrow had passed the grand stand on his fourth lap, in the Rainier No. 1, the steering gear broke, and the car threatened to become unmanageable. Herbert Bailey, Disbrow's mecanicien, crawled over the hood and, facing the radiator with his feet spread across the axle, held the steering gear together with one hand, while with the other he clutched the hood. In this manner the car made an almost entire round of the course before the repair pits were reached and the broken part repaired.

This is the first race that has been run over highways in Suffolk County, and the inhabitants, hearing of the harvest reaped by those living in the vicinity of the Vanderbilt course when races were held there, had made preparations for handling the large crowd of money spenders that they thought would attend the Derby. They were the most disappointed set of people on Long Island after the race, for the extra cots and beds and special meals that had been prepared for the enthusiasts, which they expected would come by the thousands, were never made use of.

Row Over Rejected Entries in Philadelphia Race

PHILADELPHIA, Sept. 27.—Two high-powered entries in the Quaker City Motor Club's 200-mile stock chassis race, to be held in Fairmount Park on October 9, were rejected by the Contest Committee last week under the clause of the entry blank by which the committee reserves the right to reject any entry. The cars were the 90 hp. Simplex, en-

sider the move, the cars in dispute have again been put on the list of entries issued.

The latest cars entered were two Americans of 60 hp. each The entries and drivers are as follows:

60 hp. Acme (6 cyl.), Malin Leinau. 60 hp. Palmer-Singer (6 cyl.), William Wallace, Jr.

90 hp. Simplex (4 cyl.), J. Fred Betz, 3d.



SWEET BRIAR INN, FAIRMOUNT PARK

tered by J. Fred Betz, 3d, and the 120 hp. Benz, entered by Erwin R. Bergdoll, entry fees for which had previously been formally accepted by the club. It was announced to-day that the rejection of these entries will be reconsidered at a meeting of the Contest Committee of the club this week.

No reason for the rejection could be ascertained from any of the officials of the club, but it is believed that the action was taken with the motive of protecting the lesser powered machines which have been named, and, incidentally, adding to the interesting and exciting features of the race. With the decision to recon-

49.2 hp. Apperson (4 cyl.), Herbert Lytle.
40 hp. Kline Kar (6 cyl.), not named.
50 hp. Lozier (6 cyl.), Ralph Mulford.
60 hp. Benz (4 cyl.), Charles Howard.
70 hp. Welch (6 cyl.), Al. Hall.
70 hp. Thomas (6 cyl.), Willie Haupt.
120 hp. Benz (4 cyl.), Erwin R. Bergoll.

60 hp. Chadwick (6 cyl.), Len Zengle. 60 hp. Chadwick (6 cyl.), Joe Parkin, Jr. 32.4 hp. Columbia (4 cyl.), John K. Coffey.

59.3 hp. Benz (4 cyl.), Barney Oldfield. 40 hp. Chalmers-Detroit (4 cyl.), Bert Dingley.

40 hp. Chalmers-Detroit (4 cyl.), Lee Lorimer.

60 hp. American (4 cyl.), Robert Grach. 60 hp. American (4 cyl.), E. O. Hayes.

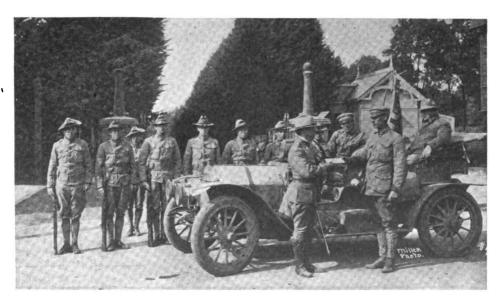
Police Call Off 24-Hour Race

Owing to the heavy rainstorm, which put the track in a dangerous condition for fast driving, the police compelled the officials of the Motor Racing Association to postpone the twenty-four-hour race, which was scheduled to be run on the Brighton Beach track on September 24-25. The rain began to fall early Friday morning, and by 5 o'clock in the evening, the time scheduled for the start, the track was a quagmire of rain and mud, over which it would have been impossible for the cars to have raced without great danger to the drivers.

Shortly before the time scheduled for the start, Police Inspector Stephen O'Brien, of the Fifteenth Inspection District, arrived, and looking over the track, notified A. B. Cordner that the race would not be allowed to start. The Motor Racing Association had advertised that the event would be run, rain or shine, and it was with reluctance that

Mr. Cordner announced to the contestants that the race was off for the time While the promoters of the being. event did not approve of the calling off of the race, the drivers of the nine cars entered, who were at the track waiting the word to start, were greatly relieved when they learned it would not be necessary for them to drive around the water-soaked track. Despite the downpour several hundred persons were within the grounds at the time scheduled for the race to start, and they expressed their dissatisfaction when the affair was called off.

At a meeting of the Motor Racing Association it was decided that the post-poned event would be run on Friday and Saturday, October 15 and 16, provided there are no conflicting automobile dates, and a sanction for these days has been applied for to the Contest Board of the American Automobile Association.



PRESENTATION OF DISPATCH CARRIED BY MITCHELL RANGER TO SAN FRANCISCO

Sanction for Vanderbilt Race is Granted

Whatever doubt may have existed as to the running of the Vanderbilt race, restricted to stock chassis, on October 30, was removed this week, when word was received from Buffalo that Chairman Hower, of the A. A. A. Contest Board, had granted a sanction for the event.

Entry blanks for the race will be issued at once, and offices for the Motor Cups Holding Company, which has the race in charge, will be opened in the Long Acre Building, corner of Seventh Avenue and 43rd Street, just south of

the Hotel Astor. Here boxes and seats in the grand stand will be placed on sale, and a complete office force to handle the thousand and one details necessitated by a race of this magnitude will be installed.

These offices, which are located in the heart of the theatrical district, directly opposite the Times Square subway station, will be kept open at night for the benefit of people desirous of purchasing seats or wishing to obtain any information whatever about the race.

Virginia County Bars Motor Vehicles

According to a dispatch from Richmond. Va., motorists who reside in or visit the County of Bath are going to have a very bad time. It appears that the supervisors of that county have ordered that on and after September 24 there shall be no automobiles on certain of the roads in that county. As many of the best highways are included in the order, thus closing them to the users of cars, touring in the vicinity will be considerably restricted. The supervisors. it is said, acted under the provisions of a State law which allows them to direct for what purposes roads shall be used, the vehicles prohibited from using the same and providing penalities for those who violate the laws.

As the law is general and can be applied to any county in the State, it is possible that other counties may resort to the same action, especially in view of the fact that in some of the agricultural sections there is a great deal of aversion to having the machines pass along the highways, adds the dispatch. While the regulation of the supervisors of the county of Bath did not go into effect till Friday of last week, there is already a move on foot to test the validity of the order by going to the courts. There is no restriction to to the driving of horses.

New Orleans to Have a Big Meet

The directors of the New Orleans (La.) Automobile Club recently held a meeting at which dates for the annual fall and Mardi Gras automobile races were set. The big fall meet is scheduled for Saturday and Sunday, November 20-21, while the Mardi Gras carnival will commence on February 4 and last three days. Homer C. George, secretary of the club, was elected general manager of the meets, while Fred J. Wagner was made eastern representa-

tive and starter. T. C. Campbell, president of the club, will represent the Contest Board of the A. A. A.

The races will be run over the historic Fair Grounds track, which will be put into pink of condition.

A meeting of the Louisiana Good Roads Association is to be held in New Orleans on the night previous to the start of the fall meet, and more than 1,000 delegates will attend the session and races.

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Five Days of Racing at Atlanta

Racing by wholesale will be on tap at Atlanta November 9-13, when the Atlanta (Ga.) Automobile Association will inaugurate speed contests on the new two-mile track at Atlanta. The entry blanks, which have just been issued, disclose the fact that there are 32 events scheduled. They include time trials for various distances, for cars of different cubic inches of displacement, handicap races and races for amateur drivers.

The cash prizes offered by the promotors of the races will exceed in amount any prize list ever offered by any racing association for motor contests. Cars that compete in the races must comply with the stock chassis definition of the American Automobile Association, and not more than three cars of any one make may be entered in any one class. Six or more entries will be required to fill a class. Entries close on Friday, November 5.

The following is the list of events, with the prizes:

Event 1, one mile time trials, free for all. 1st prize, cup; 2d prize, cup. Event 2, ten miles stock chassis, 161 to 230 cubic inches. 1st prize, cup; 2d prize, cup. Event 3, ten miles stock chassis, 451 to 600 cubic inches. 1st prize, cup; 2d prize, cup. Event 4, ten miles free-for-all handicap. 1st prize, \$150; 2d prize, \$50. Event 5. two hundred miles stock chassis, 301 to 450 cubic inches. 1st prize, Coca Cola trophy (which must be won three times to become the property of the entrant) and \$60 in gold; 2d prize, \$300 in gold; 3d prize, \$150 in gold. Event 6, two miles free-forall. 1st prize, \$100; 2d prize, \$50. Event 7. twenty-four miles stock chassis, open only to amateur drivers. 1st prize, cup; 2d prize, cup. Event 8, ten miles stock chassis, 231 to 300 cubic inches. 1st prize, cup; 2d prize, cup. Event 9, twenty miles free-for-all handicap. 1st prize, \$150; 2d Event 10, ten mile stock chassis, 451 to 600 cubic inches. 1st prize, cup; 2d prize, cup. Event 11, one hundred miles stock chassis, 161 to 230 cubic inches.

1st prize, The Candler trophy and \$600 in gold; 2d prize, \$300 in gold; 3d prize, \$150 in gold. Event 12, four miles free-for-all. 1st prize, \$100; 2d prize, \$50. Event 13, twenty miles stock chassis, 301 to 450 cubic inches. Ist prize, cup; 2d prize, cup. Event 14, ten miles free-for-all handicap. 1st prize, \$150; 2d prize, \$50. Event 15. ten miles stock chassis, 600 cubic inches or under. 1st prize, \$100; 2d prize, \$50. Event 16, ten miles free-for-all, open to amateur drivers only. 1st prize, cup; 2d prize, cup. Event 17, four miles stock chassis, 161 to 230 cubic inches. 1st prize, cup; 2d prize, cup. Event 18, one hundred and twenty miles stock chassis, 231 to 300 cubic inches. 1st prize, Atlanta Automobile Association trophy and \$600 in gold; 2d prize, \$300 in gold; 3d prize, \$150 in gold. Event 19, ten miles handicap, open only to amateur drivers. Ist prize, cup; 2d prize, cup. Event 20, twenty-four miles stock chassis, 161 to 230 cubic inches. 1st prize, \$100; 2d prize, \$50. Event 21, six miles stock chassis, 451 to 600 cubic inches. 1st prize, cup; 2d prize, cup. Event 22, ten miles stock chassis, 231 to 300 cubic inches. Ist prize, \$100; 2d prize, \$50. Event 23, twelve miles stock chassis, 301 to 450 cubic inches. 1st prize, cup; 2d prize, cup. Event 24, fifty miles, free-forall. 1st prize. \$500; 2d prize, \$250; 3d prize, \$100. Event 25. ten miles stock chassis, 161 to 230 cubic inches. 1st prize, cup; 2d prize, cup. Event 26, ten miles stock chassis, open to amateur drivers only for Southern championship. 1st prize, cup; 2d prize, cup. Event 27, six mile stock chassis, 231 to 300 cubic inches. 1st prize, cup; 2d prize, cup. Event 28, twelve miles stock chassis, 301 to 450 cubic inches. 1st prize, \$100; 2d prize, \$50. Event 29, eight miles free-for-all handicap. 1st prize, cup; 2d prize, cup. Event 30, two hundred miles stock chassis, 451 to 600 cubic inches. 1st prize, The City of Atlanta trophy (which must be won three times to become the property of the entrant) and \$100 in gold; 2d prize, \$500 in gold; 3d prize, \$300 in gold; 4th prize, \$200 in gold. Event 31, twenty miles handicap, stock cars, restricted to contestants in New York Herald-Atlanta Journal Constitution Tour. prize, cup; 2d prize, cup. Event 32, two miles free-for-tll, best two out of three heats. 1st prize, \$200; 2d prize, \$100; 3d prize, \$50.

Five Day's Run for Kansas City Motorists

The Star trophy, the main prize for the five-day reliability run promoted by the Kansas City (Mo.) Star, was won by R. C. Greenlease in a 30 hp. Cadillac. Mr. Greenlease's car was the only one in Class A that finished with a perfect score. C. S. Carris, driver of a Franklin, was awarded second prize, the Ajax Cup, donated by the Ajax-Grieb Rubber Company. The Franklin had 9.1 points penalization, of which 3 points were acquired on the road. The Rambler, No. 20, with 22.1 points in demerits, was third in rank, but not being in the same division as the Cadillac, won no trophy.

The Studebaker Cup, offered by the Studebaker Bros. Manufacturing Company for Division 2 cars, went to Great Smith, No. 11, with 23.5 points in penalties. Reo, No. 31, was the only car in Division 4 to finish without disqualification, and was awarded the Auto Life Cup. Fifth place, but no prize, went to Mason, No. 24, with 33.25 points. Jackson, No. 25, which also had a perfect road score, was found to have 43 points in defects.

Fifty-five cars in all started on the 750 miles run from Kansas City, Mo., to Omaha, Neb., and return on September 20. Forty-nine were contestants, while the others were official and press cars. There were thirty-four entries competing in Class A, in four divisions, with a graded time schedule for each division. In Class B, for private owners' cars, there were sixteen cars entered.

The first day's run to Junction City, Kan., resulted in twelve cars being eliminated from the clean score division of Class A, and on the second day six more had marks against them. On the first day the Buick roadster, driven by Roy Dillon, and carrying E. R. Kirkland as observer, crashed into a telegraph pole at Lawrence, Kan., about forty miles

out of Kansas City. Dillon had one of his legs broken, while Kirkland was badly cut and bruised.

The second day's run was from Junction City to Lincoln, Neb., a distance of 189 miles. The last part of this journey was made over very muddy roads in a heavy rainstorm. A Pennsylvania, Maxwell and Great Smith had a three-cornered collision, while the first-named car was trying to pass. No one was injured, but the three cars were slightly damaged. The third day the cars made a 126-mile run to Omaha, which was reached early in the afternoon of Thursday. The next day's stop was St. Joseph, and on the final day the cars returned to Kansas City.

The technical committee's penalizations for the leading cars were as follows:

No. 4, Franklin—Two loose fender bolts, one loose lamp and road penalizations—9.1 points.

No. 20, Rambler—Broken rear seat board, four loose fenders, ten minutes' labor adjusting spring bolt, and purchase of spring bolt—22.1 points.

No. 11, Great Smith—Loose fan belt, loose fan belt pulley, two steering knuckles bent, and labor expended—23.5 points.

No. 24, Mason—Aluminum strip off of dash board, horn brackets off, labor on horn brackets, gas lamps broken, loose fenders, seven screws missing, one front spring clip broken, and fender bolt loose—33.25 points.

No. 25, Jackson—Two damaged brake levers and bent front axle—43 points.

Milwaukee Has Ideal Show Building

When the new \$500,000 auditorium, which was dedicated last week, is completed. Milwaukee will have an ideal structure for the holding of automobile shows, and already the Milwaukee Automobile Club has begun to make arrangements for its second annual exhibition, to be held in March, 1910.

Munsey Tourists Finish 1283-Mile Run

After traveling 1,283 miles since September 21, eighteen of the twenty-five starters in the Munsey reliability run, from Washington to Boston and return, completed the tour on Wednesday, September 29, when they made a run from Philadelphia to the National Capital. Of the starters, six cars were withdrawn because of injuries, one was disqualified, and up to late the night of the finish another had not been heard from.

The run, which was under the auspices of a chain of newspapers in Washington, Philadelphia and Baltimore, was made in eight running days, with an average of slightly more than 160 miles per day. Weather conditions did not favor the tourists while they were on the road, as it rained six out of the eight days, and, as a result, the roads over which the route led were far from being in excellent condition.

On Wednesday night the tourists were entertained at the Belasco Theater

in Washington, while the Technical Committee began its work on the contesting cars. At this writing (Thursday) no announcement as to the result of the committee's examination had been made.

The first two days of the run were reported in last week's isue of AUTOMOBILE TOPICS. The third day's schedule required the tourists to travel the 158.5 miles between Milford, Pa., and Albany, N. Y., with a schedule of 16, 18 and 20 miles prevailing, according to the classification of the cars. Chairman Frank Trego had the first car sent away from the Pennsylvania town at 7 o'clock in the morning and the others followed at 1 minute intervals.

Shortly after Milford had been left in the rear, the tourists encountered a rainstorm which inconvenienced them considerably. For fifty miles they drove with the rain beating in their faces. The roads from Milford to Middle-



THE CHECKING STATION AT EASTON, PA.

town, N. Y., were in a very bad condition, owing to the rain, and skidding occurred frequently. The condition of the roads began to improve after Middletown was passed, and by the time the noon-day control, Newburg, was reached the sun was shining and the prospects for good road conditions were bright.

When the observers' cards were examined at Albany that night it was dis-

the early stage of the day's run. The Maryland car, driven by A. W. Behrens, was climbing a rough road below Albany, when the steering gear became locked and the machine ran into a fence. One of the passengers in the car was thrown out, but sustained no injuries. The Pullman car, No. 27, driven by Nat Tuttle, and the Washington car, driven by W. D. Armstrong, met with numerous accidents, the former failing to



DEALING OUT LUNCH BOXES AT EASTON

covered that of the twenty-five starters only six had completed the three-days' trip without incurring penalizations. They were: No. 9, Maxwell; No. 17, Croxton-Keeton; No. 30, Marmon; No. 36, Elmore; No. 34, Pullman, and No. 28, Renault. The cars that were eliminated from the perfect score division during the day were: No. 26, Reo; No. 12, Pullman; No. 24, Crawford; No. 32, Washington, and No. 11, Maryland.

A number of the cars were late checking in at the Albany control. Most of this tardiness, however, was caused by the bad condition of the roads during check in up to a late hour. It was in line, however, for the start the next morning. Following were the penalizations for the day:

No. 29, Hupmob'le, .4 point for adjusting the carburetter; No. 31. Washington, .2 point for starting motor and .31 point for being late at final control; No. 32, Washington, .1 point for starting motor and .3 point for work on lamp bracket; No. 15, Croxton-Keeton, .9 point for work on spark plug and .2 point for cost of material used; No. 27, Matheson, .2 point for work done on fender, .8 point for work on mud pan and .1 point for cost of material used; No. 26, Reo, 4 points for being late at Albany. The Columbia, which met

with an accident on the second day, received a total of 382.7 points, of which 25.7 were for work on the wheel, 3 for cost of material used and 354 points for late arrival at Milford. With the .2 point sustained the first day, the car had 382.9 points against it.

Inclement weather again prevailed on the fourth day of the run, when the contestants covered the 194 miles from Albany, N. Y., to Boston, Mass., in a heavy rainstorm. The road was in frightful condition and it was with difficulty that the cars made anything that looked like schedule time over the and was also late at the final control. These two were not the only tardy ones, for, owing to tire trouble and the condition of the roads, several others were late. The tourists had their first experience of real hill climbing under adverse weather conditions, when the famous Jacob's Ladder had to be negotiated. In spite of the strenuous run the technical committee's report, which was made the day following, showed that none of the six perfect score cars had been touched with penalizations.

Saturday and Sunday, September 25



THE NOON CONTROL AT NEWBURGH, N. Y.

water-soaked highways. To add to the discomfort of the tourists considerable tire trouble was encountered, one car having no less than four punctures on the run to the noon control, Springfield.

The route from Albany to Boston included a trip through the Berkshires, but the scenery was little appreciated by the tourists, who had to devote their entire attention to making themselves comfortable while the driver steered the car through virtual rivers of mud. The Washington, No. 32. dropped a universal joint on the way and did not arrive in Boston until early the next morning. The Columbia burned out a bearing

and 26, were scheduled "days of rest." On Saturday the tourists made a trip to Fort Warren, and in the evening were the guests of the local automobile club. Owing to the conditions of the roads after the rainstorm, Chairman Trego decided to send the tourists on their return trip to Washington Sunday afternoon, and, accordingly, the cars were sent away from the Hub at one-minute intervals, commencing at I o'clock, bound for Willimantic, Conn., where the night control was located. Although the rain continued to follow the tourists. they made the night control on time and without accidents.

Leaving Willimantic at 5.30 Monday

morning, the contestants arrived at the Waldorf-Astoria, the checking station in New York, late in the afternoon, after having good roads and fine weather from Bridgeport, Conn. The run from Connecticut into New York was made without incident. When the tourists arrived in the metropolis they presented far from a bright appearance, being mud-bespattered after traveling over the wet roads of Connecticut. The entire party was entertained that

evening at dinner by Frank A. Munsey, owner of the papers under whose auspices the run is being held.

Twenty-one cars arrived in Philadelphia for the second time since the run started, after completing the 198.3 miles separating the Quaker City from New York, on the eighth day of the tour. The trip was made via Atlantic City, and after the six days of rain, the bright sunshine of Tuesday was very welcome.

Aeronauts Perform for Hudson-Fulton Crowds

So far as the early day of the Hudson-Fulton celebration were concerned, visitors got very little in the way of aeronautic views. Unfavorable weather conditions—rain on Monday and wind the following day—prevented any attempts until Wednesday, when better conditions prevailed. Both Glenn H. Curtiss and Wilbur Wright performed, complete success crowning the efforts of the latter.

Glenn Curtiss, who had stayed on Governor's Island over night, discovered early Wednesday morning that ideal weather conditions prevailed for a flight. His biplane was rolled out of the shed, and shortly before 6 o'clock he made a flight around the grounds. It lasted about one minute, when a defect in the engine curtailed the trial.

Wilbur Wright arrived at the aerodrome about 8 o'clock and immediately began preparing his machnie for a flight. When the aeroplane left the monorail it rose in the air gradually until a height of about forty feet was attained. Wright made two circuits of the parade grounds and then headed for a point slightly to the north of the Statue of Liberty.

The Dayton aciator circled the statue, which is 305 feet high, on a level with Miss Liberty's elbow. After making several figure eights and circling over

the ships at anchor in the bay, the aviator flew close to the New Jersey shore, and finally headed back to the starting point.

Wright made his second flight of the day about 5 o'clock in the evening, when, before 2,000 spectators on the parade grounds and many more thousands on boats and along the shores of Jersey and Staten Island, he made two circuits of the grounds despite the high wind that was blowing. Mr. Wright announced, after his morning flight, that he would make a long flight up the Hudson River, but after a visit to the tower of the Singer Building, he decided to postpone this flight.

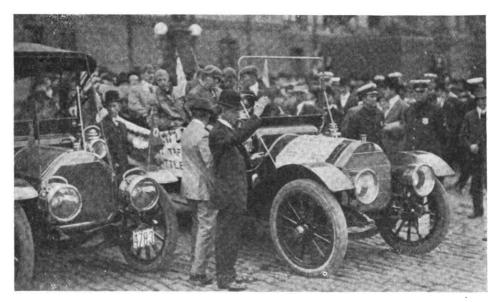
Two attempts were made the same day as the aeroplane flights to win the \$10,000 offered to the balloonist making a flight from Grant's Tomb to Albany. G. L. Tomlinson, a pupil of Capt. Baldwin, left New York in a dirigible balloon, made by Baldwin, at II o'clock in the morning, and was compelled, two hours later, to land in a field between Mamaroneck and White Plains.

Capt. Baldwin himself started soon after Tomlinson, but the captain only got as far as 190th Street, when the frame of his machine snapped. Baldwin shut off his engine and gracefully fell into the Hudson River. Balloonist and balloon were rescued.

Race Across the Continent is Re-Started

The transcontinental relay race, promoted by the *Philadelphia Press*, which was called off on Saturday, September 18, after the first courier was killed in an accident, was re-started from the City Hall of Philadelphia by L. D. Berger, president of the Quaker City Motor Club, on September 25. The race from Philadelphia to the Alaska-Yukon-Pacific exposition at Seattle, Wash., will be made by a relay of thirty-two cars. A scries of couriers will bear a message

message-bearing car, the courier was received with enthusiasm, and after an uneventful trip Harrisburg, the State capital, was reached shortly before 4.30 that afternoon. At this point a 30 hp. Maxwell took up the task of carrying the message across the continent. The courier was also relieved at this point, and, after receiving a message from Governor Stuart to the Governor of Washington, the relay was again under way, bound for the next relay point,



PRESIDENT BERGER, OF Q. C. M. C. SENDING OFF ARCHIE HUGHES

from President Taft, at Washington, to the president of the exposition at Seattle.

The first car, a Pierce-Arrow, driven by Archie E. Hughes, was sent away on its part of the 3.500-mile trip at 12.30 noon, and was cheered by the large crowd that had gathered around the starting point and along the route of the city. An escort of motorcycle policemen saw to it that the car had the right of way.

All along the route, followed by the

Altoona. This town was reached shortly before 3 o'clock in the morning of Sunday. Here a Ford car was put into service, and the 110-mile trip to Pittsburg begun.

Pittsburg was reached at I o'clock in the afternoon. At this stage of the race Mrs. K. R. Otis, who has competed in a number of motor events in and Cleveland, Ohio, relieved the driver and car from Altoona. Mrs. Otis has the distinction of traveling more miles than any of the other thirty-two relay cars.

She made the 202-mile trip from Pittsburg to Upper Sandusky, in her Stearns car, in record time, and arrived at the latter place ahead of her schedule. Seventy miles of the trip was made in a heavy rainstorm, which put the roads in bad condition for fast driving.

When the car that started from Upper Sandusky, Ohio, arrived at Fort Wayne, Ind., at noon on Sunday, it was fourteen hours ahead of schedule. At South Bend, the next relay point, the car was nineteen hours ahead of the time scheduled, and when Chicago, 868 miles from Philidelphia, was reached, the car was still far ahead of schedule. At 5.35 P. M. (Central Time) Monday. Dixon, Ill., was reached.

Accessory Makers Take 7,000 Feet of Space

More than 7,000 square feet of space at the Atlanta Automobile show, which opens November 6, was allotted to members of the Motor and Accessory Manufacturers last week. The drawing was made at the headquarters of the National Association of Automobile Manufacturers, and regular contracts have been mailed to the exhibitors.

Following is a list of those that have taken space:

Ajax-Grieb Rubber Co. Badger Brass Mfg. Co. S. F. Bowser & Co. Byrne Kingston & Co. Conn. Telephone & Electric Co. Diamond Rubber Co. , Jos. Dixon Crucible Co. Dow Tire Co. Electric Storage Battery Co. Empire Tire Co. Federal Rubber Co. Firestone Tire & Rubber Co. The Fisk Rubber Co. G. & J. Tire Co. B. F. Goodrich Co. Gabriel Horn Mfg. Co. Goodyear Tire & Rubber Co. A. W. Harris Oil Co. Hartford Rubber Works Co. Herz & Co. Kokomo Electric Co. Jones Speedometer Co. Leather Tire Goods Co. C. A. Mezger. Michelin Tire Co. Morgan & Wright. National Carbon Co. Never-Miss Spark Plug Co. N. Y. & N. J. Lubricant Co. Oliver Mfg. Co. Randall-Faichney Co.

Republic Rubber Co.
C. A. Shaler Co.
Stromberg Motor Devices Co.
High Wheel Auto Parts Co.
C. F. Splitdorf.
Sprague Umbrella Co.
Veeder Mfg. Co.
Weed Chain Tire Grip Co.
Hartford Suspension Company.

Oil paintings illustrating motoring scenes of all sorts will be a feature of the Atlanta National Automobile Show, which opens in Atlanta, Ga., on November 6. These paintings, which are being specially prepared for the big exhibition, measure 8 x 24 feet, and are the work of some of the very best artists. They illustrate scenes in connection with motor car travel that are certain to be interesting. A score or more of them, handsomely framed, will be used around the elevated platforms and in various other parts of the big Auditorium Armory.

To Cut Off Drinking of Joy Riders

TACOMA, Wash., Sept. 23.— The county commissioners will be asked to make a ruling preventing road-houses from selling liquor to chauffeurs. Proprietors of automobiles, especially persons who keep cars for hire, who are behind the movement, declare such a ruling will save them thousands of dollars annually in repair bills, in addition to doing away with reckless driving and accidents. The penalty for breaking the ruling will be revocation of liquor licenses.

Yoakum Tourists Finish Inspection of Good Roads

The Yoakum party of good roads advocates finished their inspection of eastern highways, having passed from admiration to astonishment, and have gone home to digest their experiences and begin the work of education in their sections. Starting from Washington, they passed through the Middle States and into northern New England. Rain interfered with their plans to some extent, but, on the whole, they were carried out as originally planned.

The Westerners started on their inspection of New Jersey roads on September 22, when they made a 138-mile trip from Philadelphia to New Brunswick, N. J. They were met by a number of prominent Jersey State officials, prominently identified with the good roads movement, including Senator Frelinghuysen, the president of the New Jersey State Senate; Robert A. Meeker and Edward E. Reed, supervisors of State roads; Col. Gilkyson, commissioner of public roads, and Francis B. Lee, State historian.

The Yoakum party left Philadelphia at 8 o'clock in the morning, when a light rain was falling, and it was thought that the visitors would not have an opportunity of seeing New Jersey highways under favorable conditions. The party were conveyed on their tour of inspection in seven automobiles, and the route included Camden, Whitehouse, Berlin, Hammerwodd, Manasquan, and then down the Jersey coast and over the Rumson road to Red Bank, and then through Keyport, Matawan to New Brunswick.

The New Jersey officials took the visitors over every type of road in construction in the State and explained the cost of building, the material used, the year of laying and the width and depth of the roads. Governor Fort made an address of welcome at Bartlett Inn,

Lakewood, where lunch was served in the afternoon. The New Jersey chief executive told how good roads had increased the value of farm land from \$50 to \$200 an acre during the past ten years, and related how it took his father three days to haul a load of hay to Philadelphia, which could now be done in five hours.

The Governor also spoke of the injury done to the roads by the automobiles, but added that the revenue received from license fees in his State are devoted to the building of highways, which more than offset this. Mr. Yoakum said there were over 2,000,000 miles of public highways in the United States, of which, approximately, 1,000,ooo should be improved. Taking the cost per mile in New Jersey, as a basis, it would require a billion dollars to improve 500,000 miles. This could be accomplished, he declared, through the Government's credit by loaning the States funds under proper restrictions. Senator Frelinghuysen disagreed with Mr. Yoakum, contending that it was purely a State problem, and commended the Jersey system.

The second day's inspection of New Tersey's roads had to be curtailed owing to trouble with the automobiles carrying the party and a rainstorm. The last day's stop in Jersey brought the travelers over an entirely different country from that viewed on the first day. In place of the low swamp land of the southern section of the State, the rolling hills of Middlesex, Somerset, Union and Essex were encountered. The party was very enthusiastic over the condition of New Jersey highways, and marveled at the road system of the State. James E. Owen, county engineer of Essex County; Dr. A. Clark Hunt, of the State Board of Health, and Ephraim P. Vail, assistant supervisor of roads,

joined the party when the start was made from New Brunswick.

The party was driven through the grounds of the Princeton University. The route then led through Somerville, and to the home of Senator Frelinghuysen, at Raritan, where a light lunch was From Plainfield to Milburn, served. and across the mountains to Overbrook, where an inspection of the Essex County Hospital for the Insane was made, they proceeded without incident. It was 5 o'clock when Overbrook was reached, so the party decided they had done enough inspecting for the day. In the two days the visitors had covered about 300 miles of New Jersey highways of all description. On the night of September 23 the party took the train at Montclair for New York, and left that night for New Hampshire.

After making an inspection of New Hampshire roads, the party automobiled from Laconia, N. H., to Boston, at which place they arrived on the night of September 25. Early the next morning, in a downpour of rain, the Westerners left Boston for a tour over southeastern Massachusetts and Rhode Island. The

rain did not affect the enthusiasm of the visitors a mite, for they declared they were longing for a good taste of New England weather. The route was through Hingham, Cohasset, North Scituate, Scituate Centre, Greenbush, Marshfield, Hills Station, Sea View, Kingston and Plymouth, where luncheon was served. After lunch the visitors resumed their trip, going through Manomet, Ellisville, Solitary Fork, Sagamore, Wareham, Marion, Mattapoisett, Fairhaven, New Bedford, Fall River, Warren and to Providence, where the party spent the night in Mr. Yoakum's private car.

The next day was spent touring through Connecticut, and at night the tourists gave a dinner in New Haven to the State Highway Commissioner of Connecticut, J. H. McDonald. Early Tuesday morning the travelers made the trip to New York, where they witnessed the Hudson-Fulton celebration parade in the afternoon and evening, and visited the Stock Exchange and other places of interest. The party will start for St. Louis on October I, and there they will disperse.

Climbing Up Mt. Ventoux

With a reduced list and its glories a thing of the past, the once famous Mount Ventoux (France) hill-climbing contest was held on September 4 and 5. The first day was devoted to running the motorcycle and three smallest car classes. Derny, driving a Hispano-Suiza, made the best time of the day, covering the 21.8 kilometer course in 24 minutes 11 3-5 seconds. Bablot, in a Brasier, won the Class 2 event in 45 minutes 39 3-5 seconds, while the Class 3 climb was won by Zuccarelli, in a Hispano-Suiza. Zuccarelli's time was 24 minutes 44 2-5 seconds.

Despite a slight fog which veiled the summit of the course on the second day,

Sunday, excellent performances were made by the competitors. Bablot, on his Grand Prix Brasier, succeeded in lowering his record of 19 minutes 83-5 seconds for the hill, made last year, to 18 minutes 41 seconds, while Pierron, on a Motorbloc, was second in 19 minutes 42 seconds. Lochner was third, in an Opel, taking about half a minute longer. while a little Lancia, driven by Tangazi, did remarkably well by reaching the top of the hill in 20 minutes and 15 2-5 seconds. Class 4 was won by Lancia (Tangazi); Class 5, S. C. A. T. (Ceirano); Class 6, Opel (Luchner); Class 12, Rossel (Gaste), and Class 13, Brasier (Bablot).

Properties of Glutrin, a Road Preservative

Of the various preparations for treating roads to lay the dust and act as a preservative, one of the most highly recommended is glutrin, which is said to give excellent results. It is made by the Robeson Process Co., Au Sable Forks, N. Y., which is undertaking a vigorous campaign to determine its merits.

The action of glutrin on road stones and dirt is absolutely and entirely different from that of all other materials now being offered for the purpose of securing the desired results.

While this material is of a sticky, adhesive nature, so that its very appearance indicates that it will bind the road material into a firm resilient mass—as it does—there comes an effect from it much more far-reaching and of vastly greater value.

As time passes, after the application of glutrin, the road shows a cement-like surface of great density, practically free from dust and in which the visible stones are so firmly bound as to crush and abrade but not loosen under the traffic.

The effect, or if you like, the lack of effect, of the freezing and thawing during the winter is plainly shown by the very few stones that appear on a glutrin macadam surface in the spring. By absolute count these are only 1-20 of the number found on the best of the roadways treated with other binders.

The reason for this great durability and consequent decrease in the cost of maintenance lies in the fact that there is, in all probability, a chemical action directly caused by the glutrin or produced by its presence that largely increases the yield of the so-called natural binder.

At any rate, stones of low road value can be made to produce good roads with glutrin.

Glutrin is a dark-brown liquid, syruplike in character, having a density of 30° Beaume and weighing 10½ lbs. to the gallon.

It does not, in appearance or action, in any way resemble either oil or tar.

It is applied to either macadam, dirt or gravel roads from an ordinary sprinkling cart, with no more expense than for water-sprinkling, except for the cost of the glutrin and the labor of putting it into the wagon.

No preliminary treatment of a macadam road is required unless it be very dusty or loose, and then it is preferable, though not absolutely necessary, to sweep the surface and true it up.

No after treatment is required. The glutrin is rapidly absorbed and dries in from 3 to 6 hours.

As no permanent stains or spots can be produced from glutrin, it is not necessary to close the road to traffic.

There is at first a slight darkening of the surface. This gradually disappears, however, and the road resumes its original color, though that the glutrin is still present and active is plainly evidenced by the compactness and smoothness of the surface.

The ultimate effect is that by reason of the great adhesiveness of the glutrin all of the dust and finest particles are bound together and beaten by the traffic into the holes and voids of the surface. These dust particles are thus put into their proper places between the larger stones and act mechanically to bind the mass together and preserve the surface.

This intimate contact of the surfaces, aided by the grinding action of the traffic, causes the moisture from dews and rains to combine with the glutrin and there results that chamical action whereby the amount of natural binder in the road is greatly increased.

Second Annual Good Roads Convention

The second annual national good roads convention, which was held in the auditorium of the Cleveland (Ohio) Chamber of Commerce for three days, beginning Tuesday, Sept. 21, was somewhat more successful than the initial national gathering of good roads enthusiasts at Buffalo last year. Delegates from every section of the country attended, forty-two States were represented. In addition to these were representatives of the American Automobile Association, and of the various other organizations affiliated with the A. A. A.

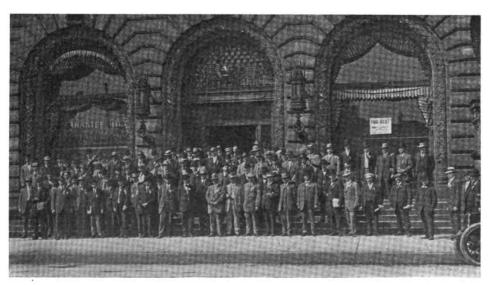
The enemies of several years ago, the farmer and the automobilist, joined hands to make the Cleveland convention a success. Up to the advent of the bicycle and automobile, the proper maintenance of the highways was chiefly the concern of the farmer, but when motor-driven vehicles became generally used the automobilists joined the farmers in the demand for the improvement of the highways. At first the farmer looked upon the efforts of the motorists sus-

piciously, thinking the drivers of motordriven vehicles wanted the road improved for their exclusive benefit, but gradually this feeling disappeared, and now in most sections of the country the motorists and farmer combine in their work of securing better road conditions.

In conjunction with the convention an exhibition of road-building machinery and road materials was held in the Central Armory. This exhibit attracted considerable attention.

President Lewis R. Speare, of the American Automobile Association, called the convention to order at 10.30 o'clock on the morning of September 21. In his opening address, President Speare declared that the convention was called with the hope of securing the cooperation of State and Federal Government, of automobilist and automobile manufacturer, of farmer and city resident in the improvement of highways, the construction of new and the maintenance of old.

The United States Government was represented by Logan W. Page, director



GOOD ROADS DELEGATES ASSEMBLED ON THE STEPS OF THE CHAMBER OF COMMERCE

of the United States Office of Public Roads. Governor Harmon was unable to attend the convention, and Lieut.-Gov. Treadway extended the welcome of the State to the delegates. Mayor Johnson was also absent, and City Solicitor Baker welcomed the delegates to the city.

After the addresses of welcome, George C. Diehl, of Buffalo, N. Y., the chairman of the convention, was introduced, and the delegates began their work. In the morning addresses were made by James C. Wonders, State Highway Commissioner of Ohio, and former Gov. N. J. Bachelder, master of the National Grange. T. C. Laylin, master of the Ohio State Grange; James H. McDonald, State Highway Commissioner of Connecticut; George S. Ladd, special good roads lecturer of the National Grange; F. N. Godfrey, master of the New York State Grange, and George T. Barnsley, civil egnineer of Pittsburg, were the speakers in the afternoon.

In his address former Gov. Bachelder outlined the work done by the National Grange in the advancement of good roads. Speaking of State aid, Mr. Bachelder said:

"Those of you familiar with the history of the adoption of the State aid system know how long it took to secure the acceptance by a few States of the principle that the State should concern itself with the construction and maintenance of the public highways. And the work is still unfinished. The States of Tennessee, Georgia, South Carolina, Nevada, Wyoming, Kansas, Kentucky, Florida, Mississippi, North Dakota, Montana, Alabama, Indiana, Texas, South Dakota, Wisconsin, Oklahoma and Nebraska have no highway commission, make no annual appropriation for road construction or maintenance, have no issued bonds for this purpose; in fact, have no system of State roads."

State Commissioner McDonald told how his home State of Connecticut had started with an apropriation of \$75,000 for road improvement fourteen years ago, and since then made appropriations of \$4,500,000. Commissioner McDonald declared that all the States in the Union should follow the examples set by the Nutmeg State, as only constant agitation would bring a general appreciation of the value of good roads. He also declared that in order to advance the good roads movement conventions should be held monthly as well as yearly.

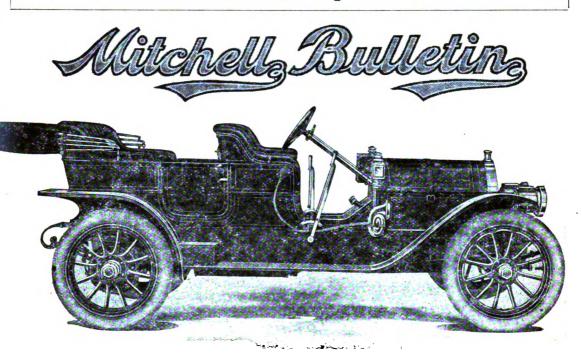
In a paper prepared by E. J. Kent, of Pittsburg, Pa., and read by G. T. Barnsley in the former's absence, there was outlined a scheme of State control worked out by Mr. Barnsley and Mr. Kent for Pennsylvania, and recommended to the delegates of other States for their consideration. The scheme includes public ownership of all highways, the establishment of a State Highway Commissioner, with sub-commissioners in the various counties, immediate surveys of all highways, the making of highway maps and the erecting of signs at all intersections of highways.

The morning of the second day was devoted to a business session, and several addresses were made, the principal one being that of Logan W. Page, the government's representative, which will be found elsewhere in this issue of AUTOMOBILE TOPICS. S. P. Hooker, of New York, sprung a surprise on the delegates when he came to the defense of the towns and county system of control. Most of the delegates had declared that the only solution of the good roads question lies in State control rather than in county and town control.

"It is a fallacy that all building of highways should be done directly by the State," said Mr. Hooker. "The idea is not borne out by the facts, for the best

Automobile Topics Tour

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A Greater Car for Less Money

Mitchell 5-Passenger Touring Car at \$1,350

A Finer Car—and the Price is Less

This model sold in 1909 at \$1,500. And it sold like hot cakes in all the Price is Less and a surface and the Price is Less under all conditions gave it a reputation that will last for years. Any will tell you unequivocally that the

car never had a fault, except the noise of its valves, and that wasn't a fault—it was merely an incident. The car earned its reputation and popularity solely by what it did, and not by what we said about it.

Silent as the Foot of Time

This year it is an entirely new car—a greater, roomier, easier riding, more powerful and more beautiful car, yet it is offered at exactly \$150 less than in 1909. This is the direct result of and the completion of our wonderful new of the completion of the completion of the careful new of the completion of the careful new of t

factory.

The lines of the car have been changed from the mediocre to the beautiful. They are artistic, graceful, refined. The noise has entirely disappeared, so that now the car is as Silent as the Foot of Time. Horse-power has been increased. Wheel base has been lengthened and wheel diameter increased. The low, broad radiator has given way to one of richer design and spring suspension so changed and improved that the easy-riding qualities of the car are enhanced tenfold.

Takes its Place in Highest-Class Company

This car (likewise our other two models) will take its place in the very highest-class company this year and

maintain it beyond the shadow of doubt. maintain it beyond the shadow of doubt.

Specifications for Model "T"—4 cylinders, 30-35 horse-power.—Motor, 4½ x 5 in. Transmission, selective. Wheels, 34 x 3½. Wheel Base, 112 inches. Ignition, magneto and dry cells. Color, dark blue, cream running gear or maroon and cream running gear. Tool Boxes, steel. Seating Capacity, five passengers. Steering Wheel, natural finish. Springs, three-quarter elliptic. Body Options, five passenger touring or close-coupled body. Equipment, oil lamps and horn, full tool equipment, including jack.

Creation of the Mitchell Six, \$2,000

Attention called to the creation of the Mitchell Six—a development of the 1909 four-cylinder, 40 horse-power car. This year it is a six-cylinder, 50 horse-power car. This year it is a six-cylinder, 50 horse-power car in crease in the price of \$2,000. This is the only six-cylinder car in existence that sells for as little money as \$2,000, and is highest class in every little detail.

class in every little detail.

Don't overlook the Mitchell Roadster—30-35 horse-power, wheel base of 100 inches, 4 cylinders, 3 passengers—the smartest roadster in the market at \$1,100.

THE CAR YOU OUGHT TO HAVE AT THE PRICE YOU OUGHT TO PAY

Mitchell Mol t Car Co.

RACINE, WIS., U. S. A.

F.O.B. Racine, Wis.

Loose Sheets of This and Previous Sections May be Obtained by Remitting Ten Cents for Each

NEW YORK TO BURLINGTON

First Section-New York to Bennington.

While Vermont has not entered upon any such good roads propaganda as have the neighboring States of Massachusetts and New York, she has made some progress in this direction. Consequently the tide of travel is entering that state and making it possible for the tourist to visit the many points of interest in this corner of New England. The accompanying route is over roads which average well and are at times extremely good. The details follow:

Starting from Columbus Circle straight up Broadway to 155th St., where turn left. Over viaduct and Central Bridge to Jerome Ave. Up Jerome Ave. to Fordham Road, where turn left to Webster Ave. Go on Pelham Ave., and at end of Pelham Parkway turn left on Shore Road. Straight to Centre Ave., New Rochelle, where turn left to Main St., Boston Post Road. Turn right on Main St. and direct through Larchmont to

Mamaroneck (21.2 miles).

Cross bridge, leaving trolleys to left, and up grade. Avoid left fork. At fork at 23.7 miles turn right. Down grade over bridge and turn left. Follow trolleys to flag pole at Rye, where turn right. Cross bridge, and I mile beyond bear right to end of road, where turn left to business center of Portchester. Along N. Main St., bearing right over stone bridge. Direct to

Greenwich, Conn. (29.6 miles).

Direct to fork, where trolleys divide; take right. Follow road to fork with signs, where turn left. To five-corners, where turn right to center of

Stamford (34.8 miles). East on E. Main St. Follow trolleys to fork, where keep right to Glenbrook sta-Turn right to fork of three roads. Take left, then straight through Springdale. Fork, right. Right at fork at lower edge of New Canaan. At four-corners turn right to end of street, where turn left to watering trough of New Canaan. right. Direct through four-corners to fork. Right to fork, then left. Turn left and next right to fork between church and cemetery. Left, turning right and again right at large tree. Left past school to end of road, where turn left to Main St. of Ridgefield. Direct through to right-hand road, where turn right and continue on main road to Danbury (62.8 miles).

Along Main St. to White St. Go out White St., and at end of car tracks bear left to Beaver Brook. At four-corners keep left. Under R. R. arch, and then right road for 2½ miles, where turn left. Direct to New Milford. Bear left without crossing bridge. Follow main road along western bank of Housatonic River. Right and over river and R. R. into Boardman's. Left along east side of river to Gaylordsville. Here take road to South Kent, via Hatch Pond, to

Kent (87.8 miles).

Left across bridge and right along the river, pasing N. Kent to Cornwall Bridge. Do not cross bridge, but bear left, and shortly right, passing West Cornwall to Lime Rock, where turn right across the river into Falls Village. At center of town turn right to South Canaan, where

turn left. At fork end of road, right, taking next left to intersection of road from Norfolk to Canaan. Turn left to center of Canaan (113.8 miles).

Follow main road to Ashley Falls, Mass. Right over R. R. to Great Barrington. Fol-

low trolleys on State macadam. Cross trolleys to foot of Monument Mountain, where bear right to center of

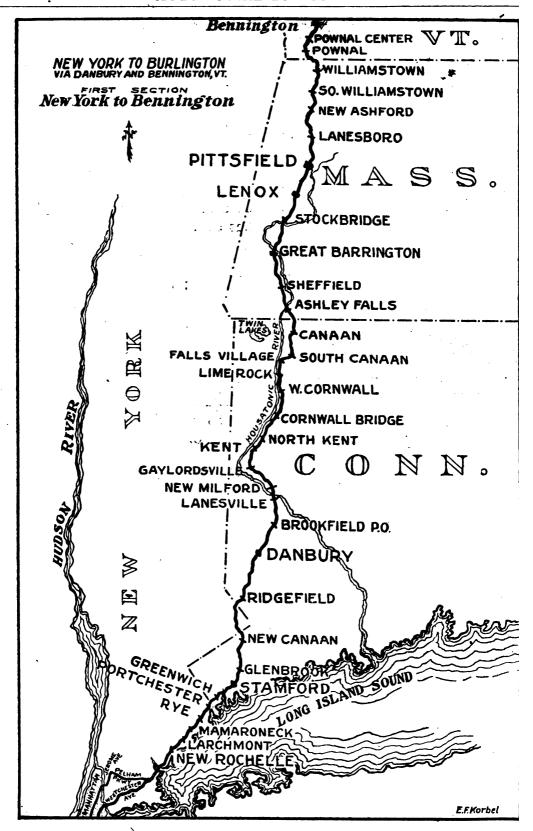
Stockbridge (133.7 miles).

Right turn between monument and inn to fork, where take left on State macadam. Direct through cross-road to church, where turn left to Lenox. Turn right between obelisk and hotel to State macadam. Meeting trolleys, follow same to

Pittsfield (146.5 miles).

From business center up North St. At fork at edge of city take left road through Lanesboro. About 1½ miles out, at fork, take left and then turn first right. Four miles beyond, at Williamstown sign, turn right to New Ashford. Keep right to South Williamstown, where turn right to Williamstown. At end of street turn left. At Greylock Hotel turn right to end of road, where turn left to Pownal, Vt. Here turn right, direct through Pownal Center, to

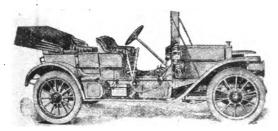
Bennington (181.5 miles).



The Envied Car

Every motor car lover likes to think that some day he'll own a Stearns.

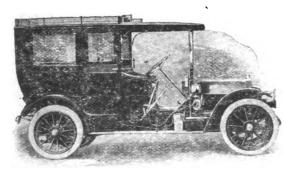
Yet thousands of men pay for lesser cars more than the Stearns would cost.



A Most Popular Model.—Toy Tonneau Style With either 15-30 H. P. or 30-60 H. P. Chassis

They buy cars that are old in one season. Then buy another the next. They are paying the price of the Stearns---and more---without having the car they want.

The Stearns grows better, with proper care, up to 15,000 miles. Its second year is better than its



The 30-60 H. P. Chassis with Limousine Body

first. Our races are won by cars which have seen at least two seasons active use.

Nobody knows how long a Stearns will last, for no Stearns has ever worn out.

The Stearns, of course, is a stunning car; but that isn't the reason why some cars cost less.

Nine-tenths of the cost is in parts you don't see. Every part of the mechanism is as costly as we can make it.

That's why the car endures. That's why it is safe. That's the source of its wonderful power.



The car as now made is perfection. We have spent 13 years in making it better, and there's little room to go further.

You can wisely buy a Steams to keep. For there will never be, in all probability, any radically better car.

Please write for our latest catalog.

A Reminder

THE F. B. STEARNS CO., Cleveland. Ohio Please send me Catalog No. 18.

"The White Line Radiator belongs to the Stearns"

results have always been obtained when the roads have been built and maintained by local officials, backed by State advice and funds."

In the afternoon, in fifty automobiles furnished by the Cleveland Automobile Club, the delegates made a tour of inspection of Cleveland roads and park driveways and the highways of the vicinity. Fifty miles were covered, and the good roads enthusiasts were unanimous in pronouncing Cleveland's roadways excellent.

The convention came to a conclusion on Thursday, after deciding that the next gathering would take place at St. Louis next year. In speaking of the success of the convention, President Speare said: "The convention has proved a complete success, especially from an educational standpoint. Never before in the history of the country has the subject of public highways received a more expert and scholarly treatment. The attendance also has been gratifying. The registration of delegates was 50 per cent. better than last year in Buffalo."

The numerous recent accidents, due to reckless and unauthoritative driving of automobiles, resulted in the delegates showing their disapproval of "joy riders." The convention resolved to request the aid of all law-abiding automobilists in the enforcement of just speed regulations and in the apprehension of "the comparatively few offenders who are deaf to persuasion and persistant in disregarding the rights of their fellow occupants of the roads."

It was planned to take the delegates for a boat ride on Lake Erie Thursday afternoon, but the trip was called off owing to the rain. The delegates were entertained in the evening in the Chamber of Commerce hall by the Hermit Club with a theatrical performance. During the morning session speeches were made by A. B. Fletcher, secretary of the Massachusetts Highway Com-

mission, "Macadam Roads"; Provest Hubbard, chemist in the United States Office of Public Roads, "Bituminous Road Materials," and James L. Cowles, secretary and treasurer of the Postal Progres League, "Parcel Post." Mr. Fletcher and Mr. Hubbard agreed that the road of the future will be bituminous macadam, at least so far as the wearing surface is concerned.

The convention placed itself on record as favoring the Currier good roads bill, now pending in Congress, and the H. M. Johnson plan for good roads in the State of Oklahoma.

Following is the national committee to be in charge of the convention next year at St. Louis: George C. Diehl, Buffalo, chairman of the American Au-Association. tomobile Good Roads Board; N. J. Bachelder, Concord, N. H., master of the National Grange; James H. McDonald, Hartford, Conn., president of the American Roadmakers' Association; Logan W. Page, director of the United States Office of Public Roads: C. F. Clarkson, of the Association of Licensed Automobile Manufacturers; S. D. Waldon, Detroit, president of the National Association of Automobile Manufacturers; Alfred Reeves, New York, general manager of the American Motor Car Manufacturers' Association; R. W. Smith, president of the Colorado State Automobile Association; S. D. Chapan, president of the Automobile Club of St. Louis; James T. Drought, Milwaukee, secretary of the Wisconsin State Automobile Association; Louis R. Speare, Boston, president of the American Automobile Association, and F. H. Elliot, New York, secretary of the American Automobile Association.

Following is Mr. Page's paper, entitled "The road situation in the United States as compared with foreign countries."

The present road situation in the United

States may be briefly summed up as follows:

In mileage, we have the most tremendous system of roads which any country has ever possessed since the world began. According to a careful road census, the length of all of our roads amounts to 2,155,000 miles. The most liberal estimate of our annual expenditure on these roads, both in money and labor. was a fraction over \$79,000,000 in 1904, or about \$1.05 per capita. At the same rate, this would be an expenditure of about \$90,000,000 a year at the present time. England, with only 150,000 miles of roads, spends about \$80,000,000 a year, or about fourteen times as much per mile.

According to our road census, we have less than 40,000 miles of stone-surfaced road, or about 2 per cent. of the total mileage; we have 108,000 miles of gravel roads, or about 5 per cent. of the total mileage. Small as our annual expenditure for roads has been, it has aggregated, during the thirty-year period from 1870 to 1900, a total of upwards of \$1,800,000. We may, therefore, say that road building in the United States is, considering area, population and wealth, at the same point at which it stood thirty years ago, and the seventeen hundred and odd million dollars have produced few appreciable results.

When we turn to the subject of road administration in the United States, we find that about half of the States are operating under practically the same road laws as prevailed in England when America was a Colony. This system of road administration provides for the payment of road taxes partly in labor, and localizes the work to an extreme degree, by placing in authority the district or township road overseers, or road supervisors, no requirement being made to insure skill or knowledge of road building on the part of these petty officials. With few exceptions, no system of accounting is in force, so that an intelligent idea may be obtained as to the disposition of the road tax; and no definite lines of authority are established such as would guarantee the wise and equitable conduct of the work.

This is the system which prevailed in all the States until less than twenty years ago. It is, therefore, easily understood why, at the present time, the concrete results in the matter of road building are so few, are confined to a comparatively recent period, and are located in those States

which have broken away from the inadequate and ineffective system which I have just described. It can also be understood why, at the present time, road work in those States which have clung to the old methods, and the old system, is conducted in a wasteful, intermittent and wholly ineffective manner, productive of no good results

Road administration has either been placed on a sound and practical basis, or steps taken in that direction, in about half of the States of the Union, comprising the New England States, New York, Pennsylvania, New Jersey, Delaware, Maryland, Virginia, West Virginia, Ohio. Michigan, Illinois, Wisconsin, Minnesota, Missouri, Kansas, California and Washington. These States have adopted in principle or practice, or both, the 'system of centralizing under a State Highway Department the conduct of all or part of the road work of the State, thereby securing uniformity in methods, economy in administration, and skill in supervision. In some of the State Highway Departments the work is educational and investigative, with a view to ultimately giving these departments administrative powers. Some of the States, notably Kansas, Missouri and West Virginia, have provided for skilled supervision in the counties, through the appointment of county highway engineers. In most of these States appropriations have been made from the State treasuries, or the aid of the State convict force has been given toward carrying on road work throughout the various counties.

It is not possible in a short paper to enter into a discussion of the various systems of State aid in effect in this country. Suffice it to say that the principle of State aid and supervision constitute the germ of the only road administration which has proven successful in other countries.

This movement is gaining headway at a very rapid rate, and, when we consider that it has been little more than a decade and a half since its inception, the fact that half of the States have adopted it in principle and have actually expended from State treasuries considerably over \$56,000,000, we may well feel encouraged for the future of road building in this country.

France.—The striking feature of the French road system is the skilled supervision in every grade of road work and in every unit of the administrative organization. The basis of the system is the school

of roads and bridges, one of the finest technical schools in the world, maintained at the expense of the national government. In this school are trained the highway engineers to whom are entrusted the building and maintenance of the roads of France. The course of study lasts three years, and the instruction is free.

At the head of the administrative organization is an Inspector-General of Bridges and Highways, under whom are chief engineers in charge of the road work of single departments and communes. Single arrondisements are under the direction of ordinary engineers and under engineers, the latter being equivalent in rank to noncommissioned officers in the army. sub-divisions are under the direction of principal conductors and ordinary conductors. Next in line come the foremen of construction gangs, the clerks employed at headquarters and finally the cantonniers or patrolmen, each having from four to seven kilometers of highways under his immediate supervision. This great administrative machine working in complete harmony with definite lines of responsibility clearly established, accomplishes results with the precision and regularity of a great clock ticking off the seconds of time. Probably the most important unit in this great army of workers is the cantonnier, or patrolman, who has charge of a single section of road. He keeps the ditches open, carefully fills holes and ruts with broken stone, removes dust and deposits of sand and earth after heavy rains, trims the trees and bushes, and when ordinary work is impossible he breaks stone and transports it to points where it is likely to be needed. He brings all matters requiring attention to the notice of his chief. Each cantonnier carries a little book, in which the chief cantonnier notes his instructions and checks up the work accomplished. The conductors go over the line at regular intervals and direct the chief cantonniers, and all reports are transmitted to the central authorities, so that any day or any hour the exact condition of every foot of road throughout France may be ascertained. Every year the conductors prepare estimates of necessary expense for the next year, under three heads, namely, "Maintenance," "Heavy Repairs" "New Work," and the parliamentary appropriations are based upon these careful calculations.

There are in France at the present time,

23.656 miles of national routes, which cost \$303,975,000 to build. There are 316,898 miles of local highways, built at a cost of \$308,800,000, of which the State furnished \$81,060,000 and the interested localities \$227,740,000. The roads of France are classified into five classes: 1st. National routes, traversing the various departments and connecting important centers of population. 2nd. The department routes, connecting the important centers of a single department and bisecting the national routes. 3rd. Highways of grand communication, little less important than the previous class. 4th. Highways of public interest, traversing a single canton and connecting remote villages and groups of houses with the more important roads.

England.—There are at the present time 149,75 miles of road in England, from which the annual expenditure for the year 1905 to 1906 amounted to \$78,059,000. It is, therefore, evident that the annual expenditure per mile of road amounts to about \$520. In view of the fact that most of the principal roads of England have already been constructed, this large annual expenditure would appear to be devoted, in a large measure, to maintenance. It would seem that a system which required an annual outlay of \$520 per mile for the entire mileage must be ineffective and costly. The explanation of this is found, perhaps, in the fact that in England the maintenance of the public highways devolves entirely on local authorities, these numbering about 1900. Jurisdiction over the roads is vested in, first, the county boroughs; second, the county councils; third, the urban district councils; fourth, the rural district councils. The county boroughs are certain large towns which hold charters from the Crown entitling them to the privilege of self-government. In these the maintenance of the highways devolves entirely upon the borough or town council. In counties, the maintenance of highways devolves upon urban councils in the urban districts, and rural councils in the rural districts. The only exception to the control of the urban and rural district councils is in the case of main roads which are highways between great towns, and the maintenance of these roads devolves upon the county councils.

Revenues are provided by district taxes, except for the main roads, for the maintenance of which a county levy is made. The national government aids in the maintenance of the highways by a contribution proportioned to the sum raised by the imperial taxation levied in the different areas.

As to skilled supervision, it may be said that no qualifications are required by law to be possessed by the men in charge of road building and maintenance, but it is the general practice in the important districts to appoint experienced highway engineers for this work. The English system lacks strong central control in each county, there being four different classes of government units, namely, the county boroughs, the urban districts, the rural districts and rural parishes. While the county council exercises some control over the rural districts and the rural parishes, they exercise none over the other two units.

Germany.—Germany is a federation of states, and it follows that road administration is conducted separately by each State of the Empire. The Imperial Government exercises very little control over the highways, and does not in any way contribute to the expense of their construction and maintenance. The Kingdom of Saxony may be taken as a representative State of the German Empire. In Saxony, the highways are divided into State roads, county roads and private ways. The State roads comprise those which have been built by the State and are maintained by the State. The county roads are generally termed "communicating roads," and are built and maintained at the expense of the parishes through whose territory they lead.

A striking feature of the Saxon road system is the practice of planting fruit trees along the roads, the fruit yielding a considerable revenue. About \$40.000 a year is obtained from the fruit grown along State roads, while the amount obtained from the country roads represents a much larger sum.

The State roads are cared for by a commission of engineers. The Kingdom is divided into seventeen road districts, in each of which there is a road inspector. Under these inspectors are road masters, who are employed constantly throughout the year. Each road master has about thirty-seven miles of road under his direction, and a road force of about fifteen men, each man caring for two and a half miles of road.

In the case of the minor roads the direct responsibility is borne by the authorities of the county. They levy the cost of maintenance and collect the revenues. The communities engage the road employes for the continued care of the highways. The technical supervision, however, is exercised by the road masters of the State force.

Strict provisions are made requiring skill and special knowledge before road officials are appointed.

Switzerland.—The road system of Switzerland is local in character; the various cantons having jurisdiction over the roads within their respective borders. The roads are classified into State roads—built and maintained at the expense of the respective cantons; community roads—built and maintained at the expense of the communities, and side, or auxiliary roads, connecting main lines of State or community roads.

Each canton has at the head of its road system, an engineer, with capable assistants. In the canton of St. Gall, which may be taken as representative, there are under control of the engineers five inspectors, or road masters, who are assigned to certain districts in the canton. The engineers and their assistants must have an academic education, and possess a diploma from the polytechnic institute; while the road masters are required to have a good technical education.

General Analysis.—It is apparent from the foregoing that while the units of administration in European countries range all the way from the localism of England to the highly centralized system of France. through varying degrees, skilled supervision is provided by all of the systems, as well as an ample cash revenue sufficient to enable the engineers to carry out adequately their plans for improvement and maintenance. England is the most striking example of extreme localization, and it is a significant fact that England is also the most striking example of lack of uniformity in road work and of excessive expenditure in proportion to mileage. It is also significant that the most perfect road system. France, with a total mileage of about 21-3 times that of England, expends about the same amount annually for maintenance. Certainly, the inference must be plain that centralization makes for economy and efficiency in the administration of the public roads.

Maintenance.—I desire to comment particularly upon what I consider to be most the important point which should engage



the attention of American road builders and legislators at the present time, and that is, road maintenance. In the years that have past, by far the largest portion of our annual expenditure has been for maintenance of our unimproved roads; a maintenance which may just be considered a mockery, for it has been a maintenance of the roads in almost their primitive condition. Now that we are actually building roads which compare with the best in Europe, it is of the greatest importance that we make provision for safe guarding and maintaining these roads built at so great an expense.

In a careful study of the highway laws which have been enacted within the past fifteen years, I find almost no provision for the maintenance of the roads, although large sums are authorized for construction. The erroneous impression generally prevails that when the so-called permanent road is constructed it is for all time, and the expense has practically all been met. I have investigated the cost of maintaining roads in the leading European countries, and the figures may almost be said to be a revelation. In 1901 England and Wales maintained 26,589 miles of main roads at a cost of \$370.34 per mile. In 1907 England and Wales maintained 27,566 miles of main roads at a cost of \$446.74 per mile, or in six years, the cost of maintenance has increased \$76.10 per mile—an increase of over 20 per cent. In France the increase in cost of maintenance of the national roads has been about 5 per cent in the The cost of maintaining same period. main and suburban roads in England and Wales in 1905 and 1906 was \$440.47 per mile. In France, the cost of maintaining all roads during 1904 was \$243.33 per mile. While these last figures are not strictly comparable, one being for 1904 and the other for 1905, yet the mere fact of one year's difference in time fails to explain the difference of \$197.14 per mile in cost of maintenance—the natural inference being in favor of superiority of the French system.

In Germany in 1906 the average cost of road maintenance was \$214.13 per mile. In Belgium, the annual cost of maintaining the provincial roads is \$277 per mile.

These figures express most forcibly two facts; first, that even the best of improved highways are not sulf-sustaining; second. that the cost maintenance varies tremendously with the degree of centralization of

the administrative organization which has the roads in charge. France, with its most highly centralized organization is maintaining her roads at 54 per cent of what it costs England and Wales, with a very local and loosely centralized organization. Furthermore, the alarming increases in the cost of maintenance has been far more rapid in the countries with local and poorly organized systems of highway administra-We have just seen that while the tion. rate of increase in maintenance from 1901 to 1907 in England and Wales was over 20 per cent., it was only about 5 per cent. during the corresponding period in France. In England, in the maintenance is often intermittent and varies with the ideas of the local administrative units; in France, the maintenance is continuous and highly specialized.

Many of our States have spent and are spending large sums of money on their highways, with but little thought or provision for maintenance. This if the experience of European countries is of any value, must prove disastrous in two ways. Frist, granting that the roads constructed at so great cost will not be allowed to go entirely to ruin, the cost of maintenance will be higher the more local and loosely centralized the organization for maintenance; and, second, systems of intermittent maintenance are sure to increase in cost from year to year as they have in Europe. It is high time that our Legislature take note of these facts and provide ways and means so that exorbitant sums need not be expended on fruitless efforts to maintain them unsystematically and in an unscientific manner.

It must also be evident from a study of expenditures in Europe, that our road revenues are entirely inadequate. While \$80,000,000 seems a large sum, it is only about \$38 per mile to meet all new construction. bridge building and every class of maintenance.

We need, and must have, more money for roads, definite provision for maintenance, a system of continuous repair nad a centralized, skilled system.

The residents of Gate City, Va., were surprised last week when an automobile passed through their town. It was the first motor-driven vehicle that had ever used the highways of the town.

Dr. Cook and the Motor Boat

In the polar expedition of Dr. Frederick A. Cook a motor boat figured. This boat not only saved the lives of Dr. Cook and the members of the expedition, but also towed the boats of an entire Esquimo village to safety and pulled the yacht Bradley out of danger when her engines were disabled.

The motor boat Farthest North was taken with the Bradley for scouting expeditions and hunting and fishing trips. It was the first motor boat ever taken into the far north, and was used in the ice fields and in shallow water where the yacht could not go.

The first rescue work was performed near Oomanooi. The engines of the Bradley became disabled in very bad weather. The 30-foot motor boat succeeded in towing her to a safe anchorage. The Bradley is a 100-foot schooner of 112 gross tons, and this was a very able demonstration of marine engine efficiency. While the repairs were made the motor boat was the only means of communication with the shore and was kept busy taking Dr. Cook and other members of the party back and forth.

When Etah, the then most northern point, was reached, Dr. Cook and a small party in the Farthest North went on a scouting expedition in search of suitable winter quarters. Annotook, a town twenty-five miles farther north, was decided upon by reason of the abundance of furs and food there. Upon returning to Etah, the entire population of that village and the Bradley started for Annotook.

A strong wind had arisen, roughening the sea, and, on account of the unknown rocks, shallow water and drifting ice, no comfortable anchorage for the yacht could be found. The motor boat was pressed into service, and with the greatest speed carried to shore the members of Dr. Cook's party, and a large amount of supplies and camp equipment. The boats belonging to the Esquimos were towed to shore, as the seas were too rough for them to attempt it alone. Dr. Cook says:

"The splendid efficiency of the launch proved equal to the emergency, and in the course of about three hours all were safely put to shore in spite of threatening winds and forbidding seas."

Would Revolutionize Postal Delivery Service

At the request of the first assistant postmaster-general a test of the motor vehicle as a collector of mail was recently made in Kansas City, Kan., the automobile used being a 28 hp. touring car.

Two collection routes, along which were 150 letter boxes widely scattered, were selected for the trial. With the ordinary methods of collection the covering of this combined route takes seven hours and twenty minutes for two men and two horses, and with the motor car a start was made at the City Hall at 5 o'clock and at 7.40 o'clock, after the lapse of two hours and forty minutes, the collector had returned to the post

office for the last time. The distance covered was approximately 35 miles, and a stop was made at each of the 150 boxes.

This saving of 4 hours and 25 minutes in the collection of mail on the two routes was made in a test conducted by H. J. McKinnon, city superintendent of carriers. He believes after his experience that the utilization of automobiles for this work would revolutionize the postal service of the country.

Autoists going to Port Jervis and Milford, N. Y., should look out for the speed traps at Matamoras.

PREVENTIVES AND REMEDIES

A long history of squeaks and minor replacements usually teaches the owner of a car that many parts of the car require occasional oiling for which his mechanical or automatic system makes no provision. Nothing is easier for the chauffeurless owner than to forget a few rather inaccessible screw-down greasers or, worse still, greaserless moving parts when he pays his morning visit to the car. When finally convinced that one has at last exhausted the tale of separate oilings, that one knows by sad experience every single detail of the car's anatomy which requires periodic attention with an oil gun, it is a good plan to get a list of the parts neatly typed on a card, to render the card waterproof with size varnish, and to secure it by pins in an inconspicuous portion of the dash. Otherwise even the most careful owner is likely to omit important details if he attempts to carry the necessary list in his head.

Lack of synchronism in the valve actions of the various cylinders results in a waste of fuel in the same way as does lack of ignition synchronism, and it is within the power of the owner to prevent this defect by adjusting the valve tappets. Leaky valves and piston rings which lead to the escape of fuel and to low compression pressures are another cause of waste of fuel. It is always possible for a motorist to keep his valves ground and to keep his piston rings in condition, and it undoubtedly pays him to do so.

It is occasionally necessary to fit in a stud or remove it from some part of the motor car mechanism. If pliers be used they either damage the thread or the plain part of the stud. If the stud be tight and has to be removed, it is often impossible to do this by means of pliers. A better way is to use a pair of lock nuts, which are run on the top side of the stud thread and locked up together, two spanners being used for this purpose. If the stud has to be removed the bottom nut is then turned by the spanner in a direction counter clockwise when looking on the top of the stud. If the stud has to be tightened the top nut must be turned in the clockwise direction. Another method that may be employed when fixing studs in place is to use a rather deep nut with a set screw; run a few threads of the set screw into the nut, and then if the nut be screwed on the top of the stud and held by a spanner while the screw is run down to lock it, the stud may be run into place by operating the set screw in a clockwise direction.

The wheels of a car should be jacked up periodically and tested, not only for smoothness of running, but for side play as well. If, in spinning a front wheel, a sharp click occurs now and again and the wheel is momentarily checked, it is probable that there is a chipped or split ball in the bearing, which should be removed at once or it may do such serious damage as to necessitate the renewal of the entire bearing.

One of the most dangerous of the "tricks" that a gasolene motor plays is back-firing through the carburetter. Back-fires usually result from too weak a mixture which burns slowly in the cylinder and is still burning when the inlet valve opens again with the result that the gas in the intake piping is ignited by it. The obvious remedy for this kind of a back-fire is so to adjust the carburetter that the mixture will not be impoverished at low motor speeds. If no amount of adjustment of the carburetter will cure the trouble, get a new one.

An effective way in which to cover up grease cups or the small oil cups which are used in such parts as steering knuckles and connections, spring shackles and rear axles, so that they may be kept free from the dirt and mud which almost invariably accumulates on them and is likely to be carried through into the bearing with the grease or oil when the cup is filled, is to procure a number of hollow rubber balls, of just such size that the cups will fit within them, and to enlarge the holes so that they may be forced over the cups and get a tight grip on the bottom-most parts. The balls will make absolutely tight coverings for the cups and if they are painted the color of the car, they do not by any means detract from its appearance.

C L U B S

The Connecticut Automobile Association held a special meeting in New Haven last week, when it voted unanimously for a test as to the constitutionality of the taxation clause in the new automobile law. There was heated comment regardling this and other alleged unreasonable features of the new law, they being sharply styled as "class legislation." The law was raked over from top to bottom in the discussion concerning it, some being in favor of taking up a fight against it at once, but the final vote being to retain an eminent constitutional lawyer at the expense of the State association, to examine and render an opinion as to the taxation clause and one or two other objectionable sections. This opinion will be sought at once. The legislative committee will announce its delivery, and the State association directors will meet again for a formal presentation of the verdict. The taxation clause as it now stands demands a registration fee of 50 cents per horse-power for every car of 25 hp., and 60 cents for every car of more than 25 hp., a big increase over all previous fees. Consequently, a man with a 60 hp. car is obliged to pay a registration fee alone of \$36 before he can take his car out of the garage. "A piece of unreasonable class legislation and nothing else,' was the way one of the State directors put it. "A lumber wagon loaded so that it takes up the whole road with heavy wobbly wheels that cut up the road will make deeper cuts in any highway in one trip than an automobile will make in years, and yet there is no thought of taxing any vehicle but a motor car. And instead of taxing us reasonable, they simply soak us."

The Automobile Club of Buffalo will conduct a series of lectures by technical experts at the club this winter. A chanee in the by-laws has been made whereby additional committees will be appointed, to have charge of maps, road signs, contests and the club journal. Approval has been made of the proposition to make a new and up-to-date map of roads in Western New York.

To stimulate interest in automobiling in the Northwest and further the movement for the construction of boulevards, as well as to promote annual automobile exhibits, races, endurance contests and shows, a temporary organization was affected in Seattle last week, to be known as the Seattle Automobile Asociation, embracing all the dealers in Seattle. It is to be a corporation, and permanent organization is to be perfected at the Rainier Club the night of October 8. At the meeting were Dr. James H. De Veuve, vice-president of the Seattle Automobile Club; Marc Bunnell, Clarence H. Jones, W. D. Wallace, Louis Cohn, A. D. Mantell, R. P. Rice, C. S. Cummings, Charles E. Plimpton, C. M. Hatcher, F. W. Lumsden and M. R. Guggenheim. It was the sentiment of the automobile dealers present, who represented a majority of the local trade, that they needed an effective organization. Vice-President De Veuve, of the Seattle Automobile Club, attended because it was hinted that the meeting might result in the formation of another and active automobile club in Seattle. The committee on permanent organization, which was appointed after Mr. Guggenheim and Mr. Jones had been elected temporary president and secretary, respectively, consists of Mr. De Veuve, as chairman, and Messrs. Jones, Plimpton, Cummings and Bunnell. They will report back at the meeting on October 8, when the organization is to be made permanent.

A Nebraska City, Neb.. organization, known as the R. A. Duff Automobile Club, has offered a cup for the winner of an endurance contest to be run on October 8, from Nebraska City to Falls City and return, a distance of 100 miles. It will be a sealed bonnet affair. Five controls have been established, and the schedule time will be two hours and forty-five minutes.

A county organization of automobile owners has been organized in Washington, Kan., with the following officers: President, Dr. Henry Smith; secretary, A. E. McGregor; treasurer, W. E. Wilson. Each town is to have a vice-president, and the following places were supplied: Linn. Dr. Robert Algie; Morrowville. William Kozel; Washington, Clay McNitt; Greenleaf, Dr. Armstrong; Palmer, Ralph Groom; Clifton, O. M. Atwood; Hanover, August Joedicke; Haddam. Charles Yoder; Barnes, Clarence Solt; Coleman, T. E. Johnson; Charleston, J. T. Pieper; Kimed, William Webster.

AUTOMOBILE SPORTS

The Automobile Club of Buffalo will hold its annaul fall field meet at Williamsville to-day, October 2. The affair will consist of a clambake and gymkhana. The gymkhana events will be held after the clamfest. About seven or eight events will be on the program, with prizes for the winners in each. There will be no speed con-Everything will have to do with tests of skill in driving. The events are as follows: First event-Speed juggling con-The operator running nearest the rate of ten miles an hour to be the winner. Speed recording devices to be covered. Second event-Dash to the north pole. From standing start, go 100 yards, the front wheels to cross the line, then reverse and back 50 feet. Third event-Balancing contest. Open to all cars. Each car will be required to carry a standard pail filled with water and placed on the floor of car. Operator must drive car up a see-saw'platform and down the other side. The winner the contestant spilling the least water. Fourth event-Potato race. Potatoes to be placed equal distances along the course and contestant must pick up each potato in order and backing up to starting point place same in basket. Open to all cars.

In the recent Russian reliability trials between St. Petersburg, Riga and back, a distance of about 1,060 kilometers, 23 cars participated. Of the starters, 19 succeeded in reaching the turning point, while 18 arrived safely back in St. Petersburg. The prize winners include Benz, Mercedes, Adler, Pipe, Opel and Humber cars, the latter being the only British vehicle in the competition.

The Providence (R. I.) Automobile Club is planning to hold an automobile race at Narragansett Pier Park some time during the month.

Oakland, Cal., motorists are looking forward with a great deal of interest to the automobile road races which are to be held over the San Leandro course on October 23. Several contests have already been provided for, and they include a 250-mile race, to be known as the Portola road race. A cup valued at \$2,500 will go to the winner. The other two races are at dis-

tances of 150 miles and 200 miles. Several small car events are likely to be included on the program.

October 12, 13, 14 and 15 are the dates selected by the Chicago Motor Club for its annual reliability run of 1,000 miles. This year's route will be over Ilinois, Iowa, Wisconsin and Indiana roads. Owing to the club's delay in issuing its rules and entry blanks there is a hitch over the regulations with the American Automobile Association, and as yet a sanction has not been granted. However, it is thought that the A. A. A. officers and those of the Chicago Motor Club will straighten out matters shortly and that a sanction will be granted in a few days.

The Austrian Automobile Club will conduct a reliability trial of industrial motor vehicles from October 3 to 17. The following classes are provided for: 1. Doctors' cars and taxicabs. 2. Motor-omnibuses having accommodation from eight to fourteen passengers. 3. Motor-omnibuses, over fourteen passengers. 4. Delivery vehicles up to 1 ton capacity. 5. Delivery vehicles from 1½ to 2 tons. 6. Delivery vehicles from 2½ to 3½ tons. 7. Delivery vehicles over 4 tons. 8. Motor road trains.

On Tuesday, October 5. and Saturday, October 9, automobile races are to be held in connection with the Danbury, Conn., fair. The first day will be given over to gymkhana events, a parade and a 3-mile race, owners to drive. Five races are to be conducted on the last day.

One of the biggest surprises of the Pratt County (Kan.) fair was the farmers' automobile parade. Although it was known that quite a few machines were owned by farmers in that section, the number that appeared in line on the day of the parade was far beyond the expectations of the managers of the affair.

An automobile carnival, to be held some time during the month, is being planned by the Automobile Club of Delaware County, Pa. The principal feature of the affair will be a series of gymkhana events.

One Club's Map Making and Sign Posting Work

The Automobile Club of Philadelphia devotes much time and money to road work-meaning thereby everything pertaining to the use and maintenance of road, sign posting, map making, etc. In line with its labor in this direction was the exhibit made by the club at the National Good Roads Convention, held at Cleveland last week. The September Bulletin of the club gives the following account of the exhibit, which was in charge of Messrs. Powell Evans, Howard Longstreath and S. Boyer Davis, dwelling particularly upon the process of map making:

"The manner of preparing these maps and a description of the various signs employed may perhaps be of interest to our members, and we give, therefore, a brief acount of the methods employed, together with the theories which govern the form and kind of map produced, and the work of erecting the signs.

"I. Maps.—As far as possible United States Geological Survey maps as a basis have been employed, six (6) of the usual Government sections, scale I inch to the mile, being assembled together, this unit covering 36 x 40 miles. On this unit the good roads are clearly indicated according to a fixed system. These roads are numbered, the intention being that through routes shall take the same number through each State, city and town.

"The geographical names on the map are enlarged for greater clearness.

"This unit is then photographed down to half size, or a scale of ½ inch to the mile, the scale employed on the English Government ordnance maps.

"Each map needs only one longitudinal fold, with a reasonable number of cross folds, to go in the average pocket, and is useable in any condition of weather. It is sufficiently large to actually indicate the condition of the country and the lines of the roads to the eye on the map, yet is small enough to cover a large area of country. It is the best compromise I have been able to find, either here or abroad, as to the question of clearness, usability, etc.

"The cost of making maps in this manner is sufficiently low to put them within the reach of all clubs, the cost per thousand not exceeding usually 25 cents apiece, printed in one color (black) on good bond paper, unmounted, this cost including the collection and assembling of the necessary data. First rate linen mounting would add about 20 cents per section.

"Many casual students of this subject might object to the amount of data on this map, including the contour lines, but as this process involves photographing original Government sheets, merely corrected to show the good roads and the names of towns clearly, this additional data could not be left out unless traced copies of the Government sheets were made, involving much greater expense and much less accuracy, so that on the score of expense alone the full data should be put on the map.

"As regards the utility of these maps, full data is of the greatest value, because maps so issued not only appeal to the automobile user, but they are the most valuable sort for real estate owners, railroads, and, in fact, for all classes of citizens. A person using such a map purely for road use, when accustomed to the system of contour lines will find them almost automatically the best guide of the road graidents at a glance.

"The Philadelphia Club, with its associates in this work, is steadily progressing with a series of maps from northeast of New York over Jersey to a point below Atlantic City; throughout Eastern Pennsylvania to a point west

of Harrisburg; through Delaware, and through the eastern part of Maryland down to the District of Columbia.

"Other clubs in other parts of the country are actually at work on similar maps, and many other clubs are considering the step, all on the principle above outlined.

"Where Government map sections are not obtainable, such sections are used as far as they go, and other data is hunted up to correct at least the good road system to make up the full map unit. The method of doing all this will be fully illustrated by the map exhibit at your disposal.

2. Signs.—The absolute necessity of a thorough and homogeneous sign system in conjunction with the map system, to make a road intelligible to a stranger passing along it without a constant description or a constant inquiry, is accepted as axiomatic by every authority on the question. Too wide a divergence in the appearance, size or principle of a sign system, however, or too many signs, are almost as bad as none at all, as has been found out in France, where the Government and the clubs and individuals or firms advertising have such a mass of data as to be confusing along the highway.

"The Automobile Club of Philadelphia, with other clubs co-operating with it, are sticking to a simple and obvious sign, either of wood or enameled iron as the purchasers choose, comprising only four types, viz.:

"(a) Double Distance and Direction Signs, 12 x 36 inches.

"(b) Single Distance and Direction Signs, 12 x 20 inches.

"(c) Railroad Grade Crossing Danger Signs, 21 x 20 inches.

"(d) Four types of Danger, 8 x 12 inches, as follows:

"(1) Danger—Run Slow; (2) Danger—Blow Horn; (3) Danger—Sharp Turn; (4) Danger—Steep Hill.

"All four of the above types of signs are illustrated by the exhibit placed at your disposal.

"In the Distance and Direction signs, in each case the top line is composed of 2½-inch block letters, naming the principal terminal cities of the route, as is obvious by reference to the map.

"The second line underneath gives, in 2-inch block letters, the main towns on either side of the point of the sign location.

"The mileages on all three of these lines correspond in size with the letters therein, the distances being worked out either from figures already definately known or by scaling the Government sheets and checking by odometer records from a run over the road itself.

Getting After Philadelphia Joy Riders

PHILADELPHIA, Sept. 27.—"Danger" and "Run Slow" signs may be erected throughout the city shortly, if the recommendations of Director of Public Safety Henry Clay bear fruit. Director Clay, in an effort to protect pedestrians, automobilists, drivers and occupants of all kinds of vehicles, has instructed the police to enforce the law relating to the operation of motor cars, and has urged the posting of warning signs.

Joy riding in Fairmount Park, which has become a favorite speeding ground in the early morning hours, will also be stopped. Colonel A. Louden Snowden, president of the Fairmount Park Commission, to-day issued orders which will result in the suppression of this form of amusement. More guards will be put on duty at once and every effort to preserve the law will be made.

Acetylene Lamps and Forms of Carbide

Shutting off the water is a very important point indeed, for a leaky tap or valve is often at the root of the distrust which some people have of their generators being able to hold a fresh charge in good condition. If the water-feed leaks with the needle-valve or cock shut, the remedy is, of course, to reseat them by grinding, but this is a process which requires very careful work, and it is not easy to accomplish in the case of a needle-valve, because the screw-thread prevents a complete rotation of the needle in permanent contact with its seat. Not until the water supply can be completely turned off, however, should the generator be regarded as being in fit condition for use.

When considering the systems of the water feed, it is necessary to take into consideration also the type of carbide which is employed. And here again there is a most surprising lack of appreciation of the distinction between the two principal types. Some generators are designed for using ordinary carbide, while others are designed for using prepared carbide, and it is essential that the right material should be used in each case if the generator is to be expected to work with satisfaction, for there is a fundamental difference in the two systems of operation.

Ordinary carbide has a wonderful affinity for water, the least drop of which sets up decomposition at a rapid rate, with correspondingly voluminous generation of gas. Moreover, when a piece of ordinary carbide has once been wetted, decomposition continues throughout the mass so long as the least dampness remains, so it is, therefore, very esential, when using ordinary carbide, to be more than ever particular that all the water-feed arrangements are in perfect condition. Prepared carbide, on the other hand, is ordinary carbide

specially treated with various chemicals, so as to reduce some of its remarkable affinity for water without completely removing it. The result is that prepared carbide does not generate gas so quickly from a minimum water supply, and does not continue to decompose from the mere dampness of a portion of its mass. It may, of course, be made to generate gas as quickly as is required, by allowing water to attack the greater quantity of it simultaneously, and it is on this principle that generators using prepared material usually act.

It may be assumed in general, in the absence of special information on the subject, that those generators in which the water level is allowed free access to a large bulk of carbide through an open grating in the bottom of a container, are intended for use with specially prepared material, while, on the other hand, those which have a drip-feed or admit the water through very fine channels in a central tube, are intended for use with ordinary carbide, and will not work readily with the prepared kind.

It is this central tube which is most often allowed to remain in a dirty condition in the generators which we have had occasion to clean for our friends, for many people seem to be oblivious to the fact that the water has to find access to the carbide through the perforations, and that it has to find its way up through a very narrow channel between the tube itself and a solid bolt in order to get even thus far. When the carbide decomposes under the action of the water, it forms a pasty mass which expands into a larger volume than the bulk of the original new carbide. quently it is very liable to force itself into the perforations of the tube, and sometimes even into the water passage between the tube and the rod. It is also on account of this expansion, by the

way, that it is essential that the carbide container should never be filled beyond the specified mark, which is usually about three-quarters of its total volume.

In the case of prepared carbide attacked from beneath through an open grating, and also in the case of some generators of the drip-type using ordinary carbide, the waste automatically falls down into the chamber beneath the carbide-basket, where, so far as it has any effect at all—and that only with the former type of apparatus—it is rather useful than otherwise in serving to maintain a more constant head of water.

With the other details appertaining to generator construction it is unnecessary to refer specially. Pipes and passages should be periodically blown through to see that they are clear, and if there is a cotton wool filter for the gas this should be changed occasionally if it seems to require it. Especially should it be seen that all the different parts of the generator go together freely, and that they can be fastened in accordance with the maker's instructions. If these things are done regularly, we are sure that the motorist who is apt to be bothered with lamp troubles will find that he has relegated them almost entirely to the past.

When lighting up in a hurry, however, some saving of time may be effected by disconnecting the gas-pipes from the lamps for a second or two, in order to allow the air to be blown out by the gas more quickly. The burner holes are so exceedingly small that this process is often annoyingly slow if the connections are left intact.

In conclusion, for the benefit of those who are more or less au fait with chemistry, we will briefly refer to the chemical action which takes place in an acetylene generator, and we have the less diffidence in doing so inasmuch as it cannot be readily referred to in text

books. The process of making acetylene from calcium carbide dates from the commercial production of calcium carbide itself, which, in turn, was one of the many "by-products" of electricity.

The electric arc produces a temperature which enables chemists to prepare compounds direct from their elements—one of the most interesting and important landmarks in the progress of the science—and calcium carbide was one of the first substances thus made. Lime (which is automatically reduced to calcium by the heat) and pure coke are the ingredients used; the electric arc fuses them together so as to form one substance instead of two, and it was only in 1892 that this process was discovered.

Water has the effect of decomposing calcium carbide into its constituent parts again, but the carbon, instead of appearing as coke, combines with the hydrogen of the water to form acetylene, while the calcium takes up the oxygen and becomes lime. This latter, owing to the excess of water in all generators, becomes "slacked" automatically, and it is, therefore, slaked lime which forms the refuse paste that is thrown away when a generator is cleaned.

The equations representing these changes are as follows: Calcium carbide (CaC₂) + water (H₂O) = acetylene (C₂H₂) + lime (CaO). In which the lime is slaked by the surplus water thus: CaO + H₂O = Ca(OH)₂.

Pure calcium carbide produces 5.8 cu. ft. of gas per lb., but if the calcium carbide is not pure the production of gas is less. If, for instance, 5 cu. ft. of gas is evolved per lb., this quantity used in 34 cu. ft. burner would last for nearly 7 hours, during which time it would give a naked flame of about 25 to 30 candle power. By the aid of reflectors and lenses this light is magnified into a farreaching beam.

A Californian's Impressions of Europe

E. P. Brinegar, president of the Pioneer Automobile Company, has returned to San Francisco after an absence of three months in the East and abroad. Most of this time was spent in visiting the factories in which he is interested, particularly the Chalmers-Detroit and Thomas plants, and on business connected with the new Fairview Motor Company, recently organized by E. R. Thomas, Hugh Chalmers, R. D. Chapin, Mr. Brinegar and others.

The Fairview Motor Company will build motors and trucks. A site has been purchased adjoining the Chalmers-Detroit factory, and the erection of the plant will be commenced at once.

In speaking of the automobile situation, Mr. Brinegar says the demand this year is so great all over the country for all classes of cars that it was deemed necessary to organize this subsidiary plant to assist in getting motors for the different parties interested, and also for the building of trucks. He further states that he believes the time has arrived for the active building of one, two, three and five-ton trucks. While a great deal of experimenting has been done the past three or four years, up to the present time but few have undertaken the building of trucks on a large scale. It is no longer an experiment. Good trucks have been developed, and the time is not far distant when they can be had at very reasonable prices. It was business in connection with the new plant, and a survey of the European market for the sale of Chalmers-Detroit cars, that took Mr. Brinegar to London and Paris for a short stay.

Regarding the European situation, the San Francisco dealer seemed to think that within a very short time the American car will invade the foreign market. Especially is this true of the cheaper cars, and he looks for a large export business in the near future.

"I was also much surprised," said he, "to find such a large number of American cars there, in the hands of American tourists, especially the large Thomas cars. I saw a number of these in London and Paris, also in touring through France."

Referring to the taxicab situation in foreign cities, Mr. Brinegar stated he was much impressed with the great number in use and the low tariff. He found that both in England and France the taxicab business was a large one, but he believes that the American manufacturers are, in several instances, building as good a car as those in use on the other side.

His sympathies seemed to be with the chauffeurs employed in public service vehicles in London and Paris. Examinations there are very rigid, and the chauffeur is required to pass two. The first one is for his general knowledge of the city, and is given by the police department. The chauffeur is asked to name the most direct route between two different points of London. If he cannot give the shortest route within a block or two, he is not allowed a license, but is given an opportunity to still study the map of the city. After this examination is successfully passed he is taken in hand by an expert and examined as to his knowledge of the operation of the car. The regulations are very strict, and the chauffeur not living up to them is liable to lose his license at any time. These extreme measures are necessary on account of the crowded condition of the cities there.

The entire 1910 product of the E. R. Thomas Company will be equipped with Truffault-Hartford shock absorbers.

Keeping Cylinders Too Cool

It is open for question if there be not far too general a desire to keep the cylinders and their immediate surroundings at too low a degree of heat. Taking the radiator first, many drivers are quite satisfied that, if this "hand cool," all is well, instead of which it may be taken as an accepted fact that when such is the case it is doing its work far too efficiently, and there is waste of heat taking place. It must not be forgotten that heat will always pass itself on to colder bodies, says an English writer.

Taking the charge of gas that enters the cylinders, it is at once admitted that a bigger one can be introduced into a cool cylinder than a hot one, as naturally instant contact of the spirit mixture with the rarefied atmosphere will cause an expansion, and so take up more room, according to its original weight or bulk. But against this has to be considered the less possible compression, and anything that tends to reduce compression below its most efficient point is fatal to economical working. For the information of those who did not motor in its infancy, it may be interesting to remark that before the days of higher compression, when the gases entered the cylinders at a pressure slightly below the atmosphere, the large amount of 100 cubic feet was required to obtain I hp. Heat plays a very important part in the subject under review, for without a variation of temperature any alteration in the volume of gases within the cylinders would be impossible.

The great difficulty with overheated cylinders is lubrication. If it were not for that the hotter the cylinder walls without preignition the better. If the latter effect be caused it has a similar result on the internal combustion engine to that which back pressure has upon the steam engine. America was the birth-place of an idea for cooling cylinders by

a freezing process. The originator of such a plea must either have been absolutely ignorant of the elementary and economic principles of heat and energy or had an interest in the petrol industry.

It may be urged by some that a motor car engine never appears to give off more power than when starting from That is not denied, but at what Against the cold theory is the fact that the same engine after climbing a steep gradient pulls better, and why? Because the temperature of the water in the radiator is in all probability in the neighborhood of 200° to 210° F., which goes to show this is not too high a temperature for effective results. writer has taken considerable trouble, both with tests and in obtaining the views of some of the best engineers in the motoring world. They all agree that the highest efficiency is to be obtained when the water is from 180° to 200° F. in the radiator.

The writer also made several test runs, three of which are given here.

Starting from cold each time, the road was, with the exception of one hill, fairly level and the conditions dry throughout and an excellent surface. Load, two passengers and the writer. The car was a 1908 model four-cylinder, 16 hp. with, ordinary touring body.

First run: Weather cold, slight headwind. Distance traveled, twenty miles. Second speed used up the steepest incline. Water temperature at the middle of the journey, 165° Fahr., and practically the same at the end. Time occupied, seventy minutes. Petrol consumption at the rate of 18.5 miles per gallon.

Second test run: Same road conditions. Wind slightly less and on about half the near side. Fan belt running slack to allow a slight slip. Second speed used halfway up the hill. Water temperature at the summit, 200° Fahr.,

but at end it had dropped to 180° Fahr. Time occupied on the journey, sixty-five minutes. Petrol consumption, 19.7 miles per gallon.

Third test: Atmosphere about the same, but the wind had gone round to broadside on. Same road and conditions. Top speed only used. No fan running. Time on journey, sixty-one minutes. Consumption of petrol, twenty-one miles per gallon. Temperature of water at the end of the journey, 200° Fahr.

The question of lubrication is a most important one, but the oil refiners can do much for us. Ordinary lubricating oils boil at double the temperature or water, so there is a good latitude. Special lubricants have been known to stand a test of twice that, or somewhere in the neighborhood of 850° Fahr. The advisability of adopting oil as a cooler, though tried, has not met with sufficient success to justify its use beyond the experimental stage. Want of lubrication, as well as bad water circulation or inefficient air supply (when air is the cooling medium), oftentimes causes overheating, rendering it impossible to run on the top speed, and the longer this is the case the more apparent the evil effects become.

The writer has advocated the adoption of taper cylinders, holding as his reason for so doing that the cylinders must be hottest at the compression end, and unequal expansion takes place, resulting in the piston not being an absolute sliding fit the whole time of its travel. If it be gas-tight at one end, when it enters upon the hotter area it must loose, or if the reverse is the case seizure may take place. piston cannot adapt itself to each condition, for it has each trip to enter the cooler space farthest away from the compression pole. The question is, if such trying circumstances were allowed for, could not even higher

temperatures be permitted? The actual clearance suggested cannot be given, as much depends upon the environments—chiefly size of the cylinders—but from 1-70 in. to 1-90 in. would be the general rule.

Carbon deposits on the piston heads, if allowed to accumulate to a sufficient thickness or volume to become white hot and hold the heat, may cause preignition.

It is most important that the radiator tubes should be kept clean, otherwise anything like consistent working is impossible. Some years ago the writer had charge of several large boilers with surface condensers, which are practically on the same principle as the popular honeycomb radiator, with this difference: steam circulates inside the pipes instead of air (water flows outside, as with the radiator), but this in no way affects the comparison, the object, of course, with the surface condenser being to reduce the steam to water again for re-use. These condenser pipes were exposed to view, and it could be seen that at the end of about every fourteen days a thick film of encrustation would form around them, and if this were not removed by a strong solution of soda and water their efficiency was very soon reduced to a minimum. The writer saw some tubes out of a radiator in much the same condition. At least once a month a plentiful supply of soda solution should be allowed to flow through the radiator, leaving the drain cock open, and not reclosing it until the whole has been flushed with pure water. This is very important, and the proper cooling of the engine depends upon it.

Missouri Has More Than 3,000 Licenses

Since the first of the year 3,188 licenses have been issued in Missouri to owners, drivers and dealers in automobiles. This represents 2,614 owners. 104 dealers and 470 drivers.

Does the Public Want Road Racing

If little straws really show which way the wind blows, the general public does not really entertain as great an objection to road racing as is popularly supposed. At least that is the conclusion to be drawn from one feature of the Transcontinental Relay Race, which was called off when a fatality occurred near Reading, Pa., and then put on again.

Mrs. K. R. Otis, of Cleveland, Ohio, who has broken many road and hill-climb records in her 30-60 hp. Stearns roadster, had volunteered to drive the courier from Pittsburg to Upper Sandusky, Ohio, a distance of about 220 miles. In anticipation of her dash, she had gone over the roads once, meeting with an enthusiastic reception everywhere.

Late in the afternoon, prior to the morning scheduled for her start, she received a number of telegrams from the mayors and chiefs of police in many cities, giving her the right of way, and urging her to drive to the limit. Mayor Magee, of Pittsburg, gave her the freedom of the city, and volunteered a squad of "motor cops" to pilot her out of the Smoky City. "Beat it," summed up the message sent the plucky woman driver, who ranks as the champion of her sex.

The telegram from Mayor Carlisle, of Salem, Ohio, was even stronger. "Wire exact hour of arrival," ran the message, "and I will keep traffic off the streets. Street cars to be held up. Impossible to stop Pennsylvania trains, but will station five flagmen near every crossing so you can be warned in plenty of time."

Canton, Ohio, the home of McKinley, offered the freedom of the city, while many smaller towns chimed in.

The abandonment of the race forced Mrs. Otis to call off her run, and she reluctantly turned her big brown Stearns back toward Cleveland. But if these things are indicative of the general trend of public opinion, road racing is as popular as ever.

Run Around Long Island Postponed

The New York Automobile Trade Association have deemed it advisable to postpone their Three-day Around Long Island tour, scheduled for September 28, 29 and 30, until a later date, because of the confliction with the Hudson-Fulton celebration, which will be in full swing at that time, and for which the many affiliated automobile dealers of the city have made extensive prepara-In addition to this, the Contions. test Board of the A. A. A. have withheld sanctioning the tour because various strictures appearing in their general rules have not been embodied in the Trade Association's rules governing this run, and which, in order to properly incorporate, requires an extension of

several days over the scheduled starting time

The popularity of this run has been such that dealers were loath to forego participating, but the celebration about to be inaugurated in the city is of such a character that, with but few exceptions, they have arranged to participate in the festivities planned for the occasion, incidentally not overlooking a golden opportunity of showing their new models to the host of visiting motorists that will invade the city. postponement will now give the dealers a much-desired opportunity of practically demonstrating the capabilities of their new models under conditions that will appeal to private owners.



WEEKLY JOURNAL DEVOTED TO THE INTERESTS OF AMERICAN AUTOMOBILISTS.

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Work for the A. A. A.

There is work for the American Automobile Association to do in Virginia. On another page will be found the story of an attempt, which seems to be serious, to bar the motor vehicle from the public roads of at least one county, with the belief existing that if successful there, the movement will spread to other counties.

Of course, the authorities will eventually awaken to the knowledge that users of motor vehicles possess constitutional rights which cannot be lightly violated. But it may be some time before the courts can pass upon the matter, and, in the meantime, an immense amount of injury can be done motoring by the carrying out of this plan. The project could, in all likelihood, be nipped in the bud if prompt action were taken.

It is right here that the A. A. A. has its opportunity. As the national body, professing to act for the good of all motorists, and to watch for such things as this, it has a duty before it.

Attacking the Joy Riders from Another Quarter

It is to be feared that there is something Utopian in the plan of the State of Washington county commissioners, who aim to strike a deadly blow at joy riding by forbidding the keepers of road houses to sell liquor to chauffeurs. Undoubtedly liquor plays a prominent part in most joy rides, and if the chauffeurs who figure in them could be prevented from filling up with bad liquor much good would be accomplished. It is also true that road houses are the places where most of the liquor is obtained, and if they could be closed to chauffeurs bent upon unlawful revelry a great step forward would be taken.

The movement referred to is said to be a serious one, and it is added that owners of both private cars and those used for hire are behind it. They figure that with the road houses out of the reckoning as a source of supply, bibulous chauffeurs will stay sober, and consequently refrain from running amuck. Hence, a great saving in repair bills and a tremendous falling off in accidents is confidently expected to follow the adoption of the suggestion.

There is not the slightest doubt that these expectations would be fully realized if the ruling referred to could be put in force and enforced. It is the difficulties surrounding the enforcement which would be likely to prove the rock upon which the venture would be wrecked. Apparently, chauffeurs alone are to be ruled against—meaning thereby, of course, professional chauffeurs. The owner or other user of a car who is bent upon having a "good time" would still be permitted to do so, although how the road-house keeper could be expected to draw the line—to separate the professional from all other kinds of chauffeurs—is not stated.

Assuming, for the sake of argument, that an honest effort would be made to separate the two classes (an assumption that would take a great deal for granted) it must be admitted that great difficulty would exist in making a decision in many cases. With the best intentions of the world, respectable road-house keepers—and there are some of this kind—would be hard pressed to decide such a knotty point. As to the much larger number who would want to evade the rule, it is a foregone conclusion that they would find plenty of ways of doing so.

Nevertheless, it is a good idea to seek for ways and means of checking the excesses of joy riders. Putting them in prison after they have run down and killed some one is a much less efficacious method than to prevent the fatal joy rides—at least, if life and limb are properly valued.

The erection of signs at all intersecting highways has been suggested as a provision of the ideal State highway law. What a change the passage and enforcement of such a law would make! The cost is, of course, the great obstacle in the way of its realization, and many people regard it as prohibitive. What nonsense this is will be seen upon reflection. Imagine the streets of cities and towns unmarked because it cost too much to buy and erect the signs!

Pretty nearly everybody appears to be opposed to joy riding, yet it still continues "in our midst." Perhaps the joy riders have not yet joined the opposition.

TRADE DEPARTMENT

Spark Plug Maker Starts Litigation

Roused by an assault made upon them by a rival concern, the A. R. Mosler Company, the well-known makers of spark plugs and other ignition devices, got busy last week and, after consultation with their lawyers, took action which virtually carries the war into the opposing camp. The offending concern was J. H. Lehman Manufacturing Company, who sent out notices to the effect that an injunction had been secured against the Mosler Company, restraining them from infringing certain patents which the Lehman Company held. Later this circular letter was made the subject of a correction, in which it was pointed out that an injunction had been applied for, not

To set the matter straight in the public mind, the Mosler Company gave out their side of the matter in two notices, which read as follows:

To the Trade:

We have had brought to our attention a typewritten statement sent by J. H. Lehman Manufacturing Co. to various trade journals with a request to have it published as news, which statement untruthfully states that "an injunction" was filed against us in the suit recently brought by Joseph H. Lehman against us for alleged infringement of his patent.

We positively assert that no injunction of any kind has been granted against us in any suit, and that we have a strong defense against the suit brought by Joseph H. Lehman against us, which suit will be defended by us aggressively and with the utmost activity.

We are advised by our counsel, William A. Redding, Esq., that the Lehman U. S. patent No. 741,684, upon which said suit has been brought against us, is not infringed by the manufacture, sale or use of our Spit Fire spark plugs or any of our spark plugs.

We are willing to defend, at our expense, any and every party against whom suit shall be brought upon this Lehman U. S. patent No. 741,684 for any infringement alleged by reason of the sale or use of any of our spark plugs.

The second notice dealt with the well-known Canfield patent, as follows:

A. R. Mosler & Co., of this city, have commenced a suit in the United States Circuit Court in this city against the Auto Supply Company for infringement of the well-known Canfield United States patent No. 612,701, granted October 18, 1898, for spark plugs, and owned by them. This patent broadly covers a spark plug provided with a deep chamber or recess around the electrode for the purpose of preventing an injurious accumulation of soot or other foul matter on the insulation of the electrode, which is a feature of the best known spark plugs now upon the market in this country.

This suit is one of great importance to manufacturers, dealers in and users of gasolene automobiles, because of its broad scope, and consequently the prosecution of this suit will be watched with deep interest by the trade.

One Million Bricks in One Factory Building

More than a million bricks will be used in the construction of a building which will be used as the finishing department of the Overland factory at Toledo, Ohio. Ground has been broken for the structure, which will be 600 feet

long, 100 feet wide and five stories high.

This latest Overland expansion furnishes a striking illustration of the strength of the automobile industry today, and especially of the enterprise and

activity of J. N. Willys and those associated with him in the maangement of the Overland Company. The story of this one building gives a good idea of how the situation is developing at the Overland headquarters, and of the energy with which plans and arrangements for 1910 are being made.

Shortly after taking possession of the immense Toledo plant, the Overland Company found itself handicapped in various directions. Many wasteful extravagances in the layout, arrangement and equipment of the old plant had to be corrected, while in many directions facilities were far from adequate. Shipping facilities, for example, were pitifully small, especially in view of the daily shipment of 80 cars a day, for which this company is preparing. New spur tracks and sidings were put in, long platforms provided and new shipping rooms built for this department.

The new brick building shown in the background of this picture, together

with one other, was especially built for the construction of radiators, frames, oilers and other parts. Many thousand dollars worth of old machinery was taken out and scrapped, to be replaced by the latest and most modern devices which money could buy. A large force of engineers and factory experts devoted their entire time for weeks to the re-arrangement of the whole plant, and its new equipment. There was a genuine house-cleaning from one end to the other.

It was found that greater facilities were essential in the finishing department. Mr. Willys concentrated his attention there. Within an hour the order had gone out for the great building described above. The contract calls for its delivery to the Overland Company, all ready for occupancy, within forty days from the beginning of operations. This is quick work. It means that the contractors will be on the job nights. Sundays and holidays—but the work will be done.

Fine New Woods Garage Opened in Philadelphia

PHILADELPHIA, Sept. 27.—Boasting features that are not found in any other garage in the East, the Woods Electric garage was opened to-day by J. Crawford Bartlett, local Woods agent, at Twenty-first and Commerce Streets. The building is 70 feet in width, 220 feet deep and faces on four streets. On the first floor are showrooms, offices, lockers for women drivers and supply rooms.

The second floor is taken up with a machine shop and chauffeurs' lockers, while the third floor has been utilized as a body-building shop.

The garage resembles a huge ballroom, with its unobstructed floor space 50 feet wide and 170 feet deep. There are pits for chauffeurs to work beneath their cars and facilities for charging a large number of electrics at one time, by a system which insures full battery charge and enables each car to make full mileage.

Receiver for Boston Company

Creditors with claims totaling \$30,000, the largest being Otto B. Cole of Boston, with a claim of \$24,758, petitioned Judge Frederick M. Dodge in the United States Circuit Court, Boston. who appointed Edward M. Goding, of Boston, receiver for the American Automobile Engine Company, of that city.

The first motor car factory in Russia has just been started in connection with the Russo-Baltic Engineering Works, in Riga.

Large Increase in July Exports

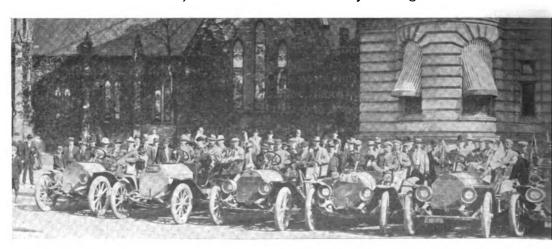
Commerce reports for the month of July, 1909, show a very substantial increase in the exports of automobiles and accessories over the same month in 1908. A total amount of \$962,243 was sold, as against \$643,901 the year previous, giving the large increase of \$318,-The largest quantity went to

British North America, its share being \$361,581. The United Kingdom ranked second, with \$333,249, while France was the third best customer, taking \$102,839 worth of goods. For the seven months ending with July the automobile and accessory exports totaled \$4,975,889. Following are the figures in detail:

July '08 United Kingdom\$273,396	July '09 \$333,294	7 months ending July '08 \$1,365,561	7 months ending July '09 \$1,508,846
France 53,602	102,830	510,758	661,071
Germany 22,744	56,924	123,531	139,788
Italy	2,068	219,136	214.345
Other Europe 54.555	21,884	164,554	243,881
British North America 191,927	361,581	692,836	1,439.930
Mexico 11,726	22,571	187,034	272 722
West Indies and Bermuda 5,885	18,730	105,523	175,448
South America 7,003	5,430	79,850	95,722
British East Indies 5,497	276	17,560	11,081
British Australasia 4.362	22,097	37,734	106,797
Other Asia and Oceania 11,247	7,585	88,273	55,691
Africa 1,930	6.464	3,356	34,325
Other countries	500	18,235	16,242
\$643,901	\$962,243	\$3,613,941	\$4,975,889

Premier Agents Try 1910 Models.

INDIANAPOLIS, Ind., Sept. 27.—Trying out cars just from the factory, and which had never been tested, the Premier Motor Manufacturing Company last Wednesday and Thursday entertained about forty of its agents from all



THE START FROM FRENCH LICK OF PREMIE

parts of the country with a run to French Lick Springs and return. The route taken by last year's reliability run, under the auspices of the Indianapolis Automobile Trades Association, was followed.

On Tuesday the agents attended a school of instruction at the factory, and were shown the 1910 Premier models. In the evening they were entertained at a banquet at the Denison Hotel.

President H. O. Smith presided as toastmaster, while Mayor Charles A. Bookwalter gave the address of welcome. Henry Eitel, of the Indiana Na-

tional Bank, spoke on the relation of the automobile industry to the financial interest. P. J. Stocker spoke on Advertising. Others on the program included Charles A. Davis, of San Francisco, the Premier Pacific Coast representative; R. I. Eads, who looks after Premier interests in New England; Webb Jay, who has the field in the Middle West; John B. Orman, advertising manager, and R. W. Macy, sales manager.

Other entertainment provided during the week included dinners at the Columbia and Country Clubs, run to the Indianapolis Speedway and theater party.

Special Headquarters for Pierce-Arrows

Highly indicative of a marked trend in the manufacture of the highest grade of motor cars this year is the action of one company in equipping all its cars with head and side lamps of its own design. Almost every year since it began the manufacture of cars has seen, with this company, the adoption of some particular design that marks the car as distinctively to the eye as the high grade of the workmanship, material and design does after a thorough inspection of the chassis.

This season all Pierce-Arrow cars are

fitted with headlamps of octagonal form, differing in a noticeable way from the regulation round headlamps so generally used. On the touring and other open cars the side lamps are square, while on the enclosed cars they are octagonal, with glass sides and fronts. The designs are the product of the art department of the Pierce-Arrow Motor Car Company.

A feature of decided advantage is the wiring of the car for the use of incandescents in the side lamps, if the owner so desires.



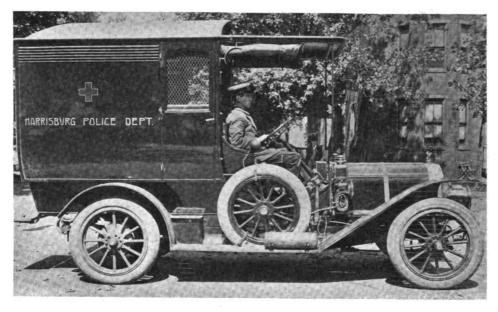
ISTRIBUTORS, WHO HAD BEEN IN CONVENTION THERE

Patrol and Ambulance for Pennsylvania's Capital

A combined patrol wagon and ambulance was recently built by Thomas B. Jeffery & Company for the city of Harrisburg, Pa., and is now in daily service in that city. It was specially constructed, having a larger frame than

possible to accommodate four injured people at one time, as well as several attendants.

The equipment consists of three stretchers, two of which are for ordinary work, and one stair stretcher,



RAMBLER COMBINED PATROL AND AMBULANCE

usual, heavier axles, heavier springs and larger wheels and hubs.

The car is a four-cylinder, 45 hp. model, with 123-inch wheel base and 35 x 5 inch tires. It is equipped with an offset crank-shaft and straight line drive, and in it are embodied all the 1910 Rambler features.

The interior is so arranged that it is

which can be used in carrying a patient around a winding stairs without any danger of jarring.

The inside is finished in bird's-eye maple and hard wood, so that the body can be scrubbed and kept perfectly sanitary and clean.

A large electric dome supplies illumination.

Says Auto Business is Most Promising of All

PHILADELPHIA, Sept. 27.—H. E. Grant, formerly associated with the well-known banking firm of J. S. Bates and Company, of New York, and recently Philadelphia manager of the firm of Newberger, Henderson and Loeb,

has become treasurer of The Motor Company, agents for Premier cars in this territory. In taking up his new duties he declared that the automobile business was the most promising enterprise of to-day.

\$300,000 for a Branch Store

Indianapolis, Ind., Sept. 27.—The Maxwell-Briscoe Motor Co. has just closed ninety-nine-year leases as well as a purchase of real estate at Illinois and Vermont Streets in this city. The transactions represent a total expenditure of \$300,000.

Plans are being made for a three-story, brick, fireproof sales room and garage to cost \$60,000, and will be devoted to Maxwell cars exclusively. Until a short time ago the company has been represented by the Fisher Automobile Co., but now has temporary quarters at 318 East Market Street, in charge of J. W. Hayden, who will become manager of the new Indianapolis branch.

Two Trucks for Wilmington Concern

WILMINGRON, Del., Sept. 29.—Two motor trucks, one a two-ton machine, and the other a three-ton, have been added to the equipment of the Joseph Bancroft & Sons Co., which has been operating one motor truck for some time.

The company has large textile mills and bleacheries here, and the machines are used largely in the yards, at the mills, which cover a great deal of territory, in hauling goods between the mills, replacing horses, and also for hauling between the works and points in the city.

Continental Opens a Chicago Branch

A new branch has been opened at 1412-14 Michigan Avenue, Chicago, by the Continental aoutchouc Company, makers of Continental tires and Continental demountable rims. The branch, which is one of the most attractively arranged automobile tire stores in that city, supplies owners, dealers and manufacturers throughout the Middle West, and has been created to care for the growing demand for Continental products. C. A. Gilbert is the resident manager.

A Useful Log Book

As a result of the extensive tour through Europe just completed by Walter Hale, the actor, the Studebaker Automobile Company is publishing, for the benefit of other Americans who may wish to tour Europe, a log book, illustrated description of the trip, giving road maps, distances, taxes, passport fees, and other information that one would otherwise gain only by experience, and a very expensive experience at that.

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INDEX TO ADVERTISERS

Automobiles (Electric)— Baker Motor Vehicle Co	17 8 6 1723
Automobiles (Gasolene)— Chalmers-Detroit Motor Co Haynes Automobile Co Herreshoff—Harry S. Houpt Co Hudson Motor Car Co Hugs Motor Car Co Inter-State Automobile Co Locomobile Co. of America Matheson Motor Car Co Mitchell Motor Car Co New York to Burlington Tour	1785 1786 1788
Palmer & Singer Mfg. Co. The Pierce Arrow Motor Car Co. Peerless Motor Car Company Inside Back Renault Preres Selling Branch The F. B. Stearns Co. New York to Builington Tour	1786 Cover
Stevens-Duryea Co. Studebaker Automobile Co. The E. R. Thomas Motor Co. Winton Motor Carriage Co. Inside Front	1721 1723 1786
Automobiles (Steam)— The White Company	Cover 1788
Batteries— Stanley & Patterson	1727
Bodies— Springfield Metal Body Co Auto-Rebuilding Co	1786
Champagnes— Pommery	1788
Classified Advertisements	1786
Electric Welding— Standard Welding Co	1724
Eye Tonic— Murine Eye Remedy Co	1783
Penders Auto-Rebuilding Co	1786
Graphite— Joseph Dixon Crucible Co	1788
Ignition Devices— A. R. Moaler & Co. Bosch Magneto Co C. F. Splitdorf. Elsemann Magneto—Lavalette & Co. J. S. Bretz & Co. Instruction—	1785 1730 1788 1729 1788
Insureducin-	

Badger Brass Mfg. Co. The R. E. Dietz Co. Gray & Davis	
Leather The Pantasote Co	1726
Lubricants Columbla Lubricants Co	1784 1788 1727
Magnetos— Bosch Magneto Co	1730 1788 1729 1788
Oils— Columbia Lubricants Co	1784 1727
Parts— Billings & Spencer	1788 1724
Photo Engravers— Sterling Engraving Co	1784
Road Binder Robeson Process Co	1785
Seats Auto Rebuilding Co	1786
Second-Hand Dealers— Times Square Auto Co	1783
Shock Absorbers— Bi-Cai-Ky Auxiliary Spring Co Hartford Suspension Co	1788 1786
Signalling Devices— Nightingale Whistle Co	1788
Spark Plugs— A. R. Mosler & Co. C. F. Splitdorf.	1785 1788
Timers— A R. Mosier & Co	1785
Tires— Alax-Grieb Rubber Co Continental Caoutchouc Co Dlamond Rubber Co Fisk Rubber Co Morgan & Wright Republic Rubber Co	1788 1786 1721 1730 1784 1788
Tire Grips— Weed Chain Tire Grip	1784
Tops— Sprague Umbrelia Co	1788
Travel— Detroit & Cleveland Navigation Co	1729
Wind Shields—	1798



News Notes

The Mitchell Motor Car Company, of Racine, Wis., has established a Milwaukee branch at 528-532 Broadway.

The A. G. Fitzgerald Selling Company, of Minneapolis, Minn., has taken over the Stearns agency in the Northwest.

The capital stock of the Kissel Motor Car Company, of Hartford, Wis., has been increased from \$200,000 to \$400,000.

The Sterling Automobile Company has been organized at Sterling, Neb., and will handle the Maxwell and Hupmobile lines.

The St. Dillon Motor Car Company of Hastings, Neb., a newly organized firm, has the agencies for the Chalmers-Detroit and Hudson.

Overland Park, Colo., will hold an automobile show early this fall in connection with its second annual fair. All makes of pleasure cars as well as commercial trucks and tractors will be shown.

At a stockholders' meeting of the Jonz Automobile Company, of Beatrice, Neb., it was voted to increase the capital stock from \$50,000 to \$150,000, most of which has already been subscribed for.

W. S. Brown, of Wichita, Kan., has plans drawn for a new two-story pressed brick garage to be erected on South Lawrence Avenue. The new structure will be 50x150 feet, and will cost approximately \$20,000.

A. L. Dyke, of St. Louis, is planning to build a motor mart at Oliver and Newstead Avenue. There will be four show rooms, 50x75 feet on Olive Street for automobile dealers and in the rear, with two doors opening on Newstead will be a garage. This is to be operated independently of the show rooms yet for their convenience in storing demonstrators.

Studebaker cars have a new home in Portland. Ore. The branch is now located at Alder and Chapman streets. The lower floor of the new building is used for salesroom, office and waiting room and enclosed in glass partitions from the rest of the floor, which is used for garage and washing space. The second floor contains an office and drivers' locker and waiting room. The third floor is used for garage, and the fourth for stock room and shop. In the basement is a bat-tery department and a compressed air outfit which delivers air at 100 pounds pressure on all the floors.



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Ask for Murine Eye Remedy. Try for Red, Weak, Weary, Watery Eyes.

After Exposure to Strong Winds, Sun and Dust.

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RUNABOUTS from.....\$100 up
TOURING CARS from.....\$250 up

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mens "30" at \$1500.

We also make the Chalmers-Detroit "Forty" (formerly the Thomas-Detroit Porty) for \$2750

Chalmers-Detroit Motor Co. (Members A. L. A. M.) DETROIT MICH. George Robertson, driver of the victorious Simplex car in the big Lowell Stock Chassis Competition of September 8, used

MONOGRAM OIL

MONOGRAM OIL was also used by Ralph de Palma, in the Fiat, at Grand Rapids, Sept. 17, and St. Paul, Sept. 11, where he made world's records for 1, 3, 10 and 25 miles.

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INCORPORATIONS

Montclair, N. J.—Montclair Riding, Driving and Automobile Club, with \$2,000 capital. Incorporators: L. L. Chinn, Andrew Morrison, Dallas Flannagan.

Columbus, O.—The Franklin Motor Car Co., with \$10,000 capital, to conduct a sales agency. Incorporators: F. H. Lawell, R. M. Todd, G. S. Ferguson, Mr. L. Welch, and H. L. Clevenger.

Jamaica, N. Y.—Dickenger's Hillside Garage, with \$1,500 capital. Incorporators: Max Dickenger, Charles Pope Caldwell and James L. Bruff.

Connersville, Ind.—Connersville Auto Supply Company, with \$4,000 capital. Incorporators: Alva Adams, Ray Thornburg and John Knecht.

Cincinnati, O.—Charles Schlear Motor Car Company, with \$25,000 capital. Incorporators: Charles Schlear, C. K. Dickman, R. M. Scott, J. T. Huddle and Charles Broadwall.

Forth Worth, Tex.—Hodge-Pemberton Auto Company, with \$10,000 capital. Incorporators: J. T. Pemberton, C. A. Pemberton, and C. T. Hodge.

Hinton, W. Va.—Hinton Automobile and Supply Company, with \$2,000 capital. Incorporators: C. C. Coalter, John Leslie, C. W. Durion, W. H. Garnett, and W. L. Frederking.

Enid, Okla.—Red Ball Automobile Company. with \$10,000 capital. Incorporators: W. H. Hill. George J. Emrich and O. J. Wilkinson.

Jersey City, N. J.—Maxwell-Briscoe-Toledo Company, with \$2.000 capital. Incorporators: S. A. Anderson, L. H. Gunther and H. O. Coughlan.

St. Paul, Minn.—St. Paul Motor Vehicle Company, with \$100,000 capital. Incorporators: J. A. Vieregge, Alma Vieregge, Felix Joswich and Jesse Joswich.

Marion, Ind.—Indiana Auto Parts Company, with \$75,000 capital. Incorporators: G. R. Stewart, R. Ruddell, H. D. Reasoner, F. C. Stephenson, and J. D. Kennedy.

Jersey City, N. Y.—Maxwell-Briscoe-Columbus Company, with \$2,000 capital. Incorporators: S. A. Anderson, L. H. Gunther, and H. O. Coughlan.

San Antonio, Tex.—Automobile Sales and Supply Company, with \$20,000 capital. Incorporators: Sidney H. Weis, E. A. Kalkhurst, and Royer Campbell.

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Automobile Calendar

September 24-October 3.—Aeroplane meeting at Lyons, France.

September 25-October 8.—Aeronautical events in connection with the Hudson-Fulton celebration, New York.

September 30-October 8.—Exhibition of aeronautic motor engines at Paris.

October 2-17.—Aeronautical Salon in the Grand Palais, Paris, France.

October 4.—Dirigible balloon and aeroplane events, under the direction of the Aero Club of St. Louis.

October 5.—International Automobile Conference in Paris, France.

October 8-9.—Automobile Day at Missouri State Fair. Sedalia.

October 8-9.—First annual reliability and economy contest of the Louisville (Ky.) Automobile Club.

October 8-9.—National automobile race, Inquan apolis Motor Speedway.

October 9.—Automobile Parade in St. Louis, Mo., in connection with Centennial Week.

October 9.—Second annual stock chassis race in Fairmount Park, Philadelphia, under the auspices of the Quaker City Motor Club.

October 9-24.—Aeroplane meeting at Marseilles, France.

October 12-15.—1,000-Mile Reliability Run, under direction of Chicago Motor Club.

October 16-31.—Automobile Show, to be held in City Park Armory at Atlanta, Ga. Auspices of National Association of Automobile Manufacturers. Samuel A. Miles and Alfred Reeves, managers, 7 East 42d Street, New York.

October 15, 16, 17.—Three-days of aviation contests at the Indianapolis Speedway grounds.

October 18-30.—First Automobile Show in Dallas, Tex., under auspices of Dallas Automobile Dealers' Club.

October 23.—Road Race at San Francisco, Cal.. under auspices of the Automobile Club of California.

Mica Type, Magneto Type for the Askingl



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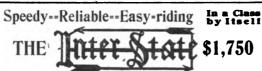
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Hudson "Twenty" \$900 "Look for the Triangle on the Radiator"

Most low priced cars have been too small. In the Hudson "Twenty" you get a M_2 car with a 100 inch wheel base, and 32 inch wheels. It is as roomy as any roadster made, regardless of price. To insure absolute comfort to the driver and passenger, the foot pedals are adjustable, A woman can drive it with as much comfort as a 6-foot man.

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Possible. Write for Catalogue, Department D.
HARTFORD SUSPENSION CO.

E. V. Hartford, Pres. 145 Bay St., Jersey City, N. J.

October 27-29.—Automobile Track Race Meet at Vicksburg. Miss.

October 28-30.—Three-days' race meet in Dallas, Tex.

October 30.—Vanderbilt Cup race on Long Island under the auspices of the Motor Cups Holding Company.

November 9-13.—Automobile Carnival at Motordrome, Atlanta, Ga., under direction of Atlanta Automobile Association.

November 12-20.—Annual Olympia Automobile Show in London, England.

November 20-21.—Annual Fall Track Race Meet. New Orleans Automobile Club, New Orleans, La. Homer C. George, secretary-manager.

November 22.—Start from Denver, Colo., of the Flag-to-Flag reliability run.

December 29-30.—Fourth Annual Mid-Winter Endurance Contest, under direction of the Quaker City Motor Club.

December 31-January 7.—New York City, Grand Central Palace. Tenth International Automobile Show. Under the management of the American Motor Car Manufacturers' Association with the Importers' Automobile Salon and the Motor and Accessory Manufacturers. Alfred Reeves, general manager, 505 Fifth Avenue, New York City.

January 8-15.—Tenth Annual National Automobile Show in Madison Square Garden, New York, under the auspices of the Association of Licensed Automobile Manufacturers.

February 4. 5, 6.—Annual Mardi Gras Speed Carnival. New Orleans Automobile Club, New Orleans, La. Homer C. George, manager.

February 5-12.—Ninth Annual National Automobile Show in Chicago, under the auspices of the National Association of Automobile Manufacturers.

February 22-26.—Fourth annual Automobile Show in Convention Hall, Kansas City, Mo.

CLASSIFIED ADVERTISEMENTS

FOR SALE.—BERLIET, French, \$2,000; 40 hp.; 7-passenger touring car in first class condition; complete equipment; telephone No. 5116 Columbus. Address. Room 41, 200 West 72d Street.



The 1909 Year Book

(Motor Cyclopaedia)

T is the only publication of its kind useful to both the trade and the public, and is a work to which the manufacturer, the jobber, the retailer, the garage keeper, the repairer, thousands of persons engaged or interested in the trade, the purchasing agent, the engineer, the factory superintendent, the designer and the inventor, the owner or the user of the motor vehicle, the pressman, the legislator, the magistrate and the lawyer, must, at one time or another, have occasion to refer.

Many automobile users, diffident, or fearing to appear ignorant, obtained more information from the Year Book of 1908 than from any other source.

THE YEAR BOOK (Motor Cyclopædia) furnishes, in complete form, conveniently arranged and classified, information for the motorist and the trade, relating to the motoristelf and to its application, directly or indirectly, to automobiles, boats, motorcycles and aerial apparatus.

THE TECHNOLOGICAL PART, alphabetically arranged, gives the modern signification (illustrated by cuts) of technical terms and expressions used in connection with motors, automobiles, motorboats, motorcycles and aeronautics.

The following list embraces subjects which are classified twice, first alphabetically and second by trades:

MANUFACTURERS of and DEALERS in Complete Automobiles, Motor Boats, Motor Cycles, Aerial Apparatus.

Garages, Repair-shops, Designers, Engineers, Purchasing Agents,
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Makers of and Dealers in Parts and Accessories,
Manufacturers of Machine Tools and Shop Equipment,

Price, \$6 Per Copy f. o. b. New York

ADDRESS :

Automobile Topics NEW YORK CITY

Now Ready—The 1910 WINTON SIX

exhausts the present possibilities of motor car perfection

The best car in the world has been made still better.

Radical improvements were impossible, but many refinements greatly increase the car's value to the purchaser.

The motor remains absolutely unchanged—Six cylinders, 48-horsepower. Ample evidence of the superiority of the six principle and of the Winton Six motor.

The multiple disc clutch is fifty per cent larger in diameter, and, with four springs, requires but slight foot pressure in operation.

The buyer now gets four forward selective speeds—a new extreme speed having been added. The previous top speed wasn't high enough for the superb Winton Six motor.

A newly-perfected carburetor emphasizes

the motor's beautiful operation.

The frame is inswept in front to give a shorter turning radius.

Springs of increased size are semi-elliptical all round, permitting low suspension of body. Four shock absorbers and four rubber bumpers.

The front axle is of channel-section pressed steel.

Wheel base is 124 inches—an increase of four inches.

The body is longer and wider—a beautiful, roomy creation, with bucket seats forward and wide tonneau doors. Seven passenger equipment extra.

Running boards and guards are wider. Rear guards drop over the wheels. Running boards and front floor are covered with pressed aluminum.

Other new features are: New design radiator, with longer tubes, longer filler, and hard-rubber cap; hard-rubber steering wheel rim, longer spark and throttle levers on steering column, brake and gear change levers are nearer the seat, increased brake leverage, solid brake spiders, long or short pedals at purchaser's option, carburetor primer on dash, improved design auxiliary gasoline tank on dash, Eisemann dual ignition, larger oil tank, oil cups on springs, larger exhaust tube, larger front universal joint.

As before, the Winton Self-Starter starts the motor from the seat without cranking. An attachment inflates tires without the use of pump. These are exclusive Winton Six features, not to be found on any other car.

The price remains unchanged at \$3000. At this figure the 48 horse-power Winton Six represents the absolute limit of motor car value.

Specifications of the 60 horse-power Winton Six will appear later.

The coupon will bring you our interesting and factful literature. Mail it now.

THE WINTON MOTOR CARRIAGE CO., Member A. L. A. M., CLEVELAND, U. S. A.

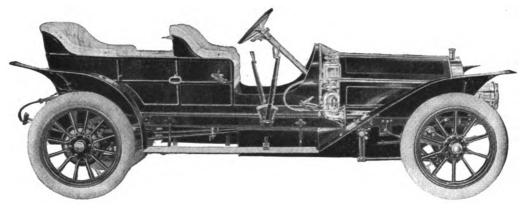
Winton Branch Houses (owned and operated by the company) in New York, Boston, Philadelphia, Baltimore, Pittsburg, Detroit, Chicago, Minneapolis, Seattle, and San Francisco.

THE WINTON MOTOR CARRIAGE CO., 920 Berea Road, Cleveland, O.

Please send Winton Six literature to___



Pierce Arrow Car



The Miniature Tonneau

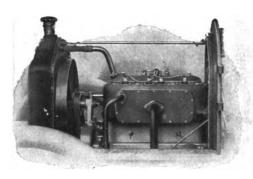
ANY automobile users are becoming interested in the Miniature Tonneau, which is a compromise between a Runabout and a Touring Car. Its convenience in getting about compensates for the smaller number that it will carry.

The latest model of Pierce Arrow Cars is the Miniature Tonneau of unusually attractive lines, equipped, of course, with the infallible Pierce engine. It has six cylinders and is made in 36, 48 and 60 horse-power, at \$4,000, \$4.850 and \$5.850.

THE PIERCE-ARROW MOTOR CAR CO. (Members Association of Licensed) Buffalo, N.Y.
Owners of THE GEORGE N. PIERCE COMPANY

THE WHITE GASOLINE CAR

Is in a Class by Itself



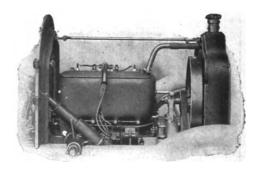
Left Side of White Gasoline Engine

THE White gasoline car embodies a number of desirable features which are not found in any other American car. These features are by no means experimental, but have been adopted for the 1909-1910 models of the leading foreign makes. For example, the White has a "long stroke" motor, which recent experience has shown to be by far the most satisfactory, giving increased power, higher economy and greater efficiency.

Then note carefully in the accompanying illustrations, the extreme simplicity and neatness of the engine. No other American car has an engine so free from complications.

Another distinctive feature of the White gasoline car is that it has a four-

speed transmission. This feature has hitherto been found only in cars of very much higher price. As is well-known, a four-speed transmission is as much superior to a three-speed transmission, as the latter is to a two-speed transmission. If you are planning to buy a gasoline car, why not get the very latest in construction? You can find it only in the White gasoline car at \$2,000, or in the 1910 foreign cars at double the White price.



Right Side of White Gasoline Engine

Write for Descriptive Circular

THE WHITE COMPANY

820 EAST 79th STREET

CLEVELAND

New York, Broadway at 62nd St. Boston, 320 Newbury St. Philadelphia, 629-33 North Broad St. Pittsburg, 138-148 Beatty St.

OHIO

Cleveland, 407 Rockwell Ave. Atlanta, 120-122 Marietta St. Chicago, 240 Michigan Ave. San Francisco, Market St. at Van Ness Ave.

Wright Aeroplane Fulfills Government Requirements



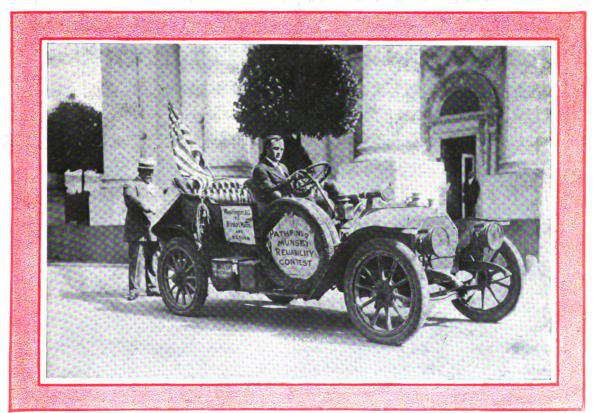
[No. 460.] 9th YEAR.

PRICE TEN CENTS

Vol. XVIII

NEW YORK, AUGUST 7, 1909

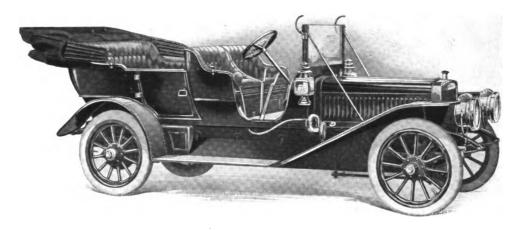
No. 18



PRESIDENT TAFT WITNESSES DEPARTURE OF CHALMERS-DETROIT PATHFINDER EN ROUTE FROM WASHINGTON TO BOSTON

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WINTON SIX



Any Car is Good Enough Until You Know Better

USED to think there was nothing like a good horse.

Now we know better.

Once thought that the twocylinder car was ideal, but the four taught us to know better.

And the four was surely the best car in the world until the

WINTON SIX

taught us to know better. When a better car than the Six comes along, we'll be first to acknowledge it.

Meanwhile, the Winton Six shows supremacy over all the field in:

Quietness to a degree mechanically impossible in fours.

Sweet operation, due to the continuous power stream found only in sixes.

Flexibility, inseparable from continuous power.

Hill climbing ability, due to Six reserve power.

<u>Self-cranking motor</u>, a feature found on Winton Sixes exclusively.

We used to make fours. But we haven't been guilty since 1907. We reformed the minute we knew better.

We believe the Winton Six is the best gasoline car ever produced.

Winton Six owners believe the same thing.

We had to <u>convince</u> them, and now they are glad we did.

Because they know what it is to realize the real joy of motoring.

They know what it means to be free from repair bills. Twenty Winton Sixes ran 184,-190 miles (more than seven times

around the earth) on total upkeep expense of \$142.43.

That averages 7.7 cents per 1000 miles.

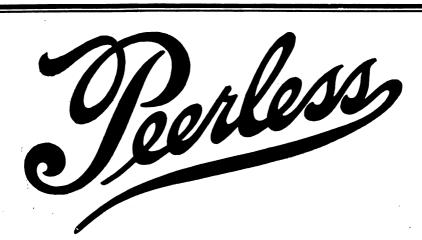
What was your average Mr. Owner, with your Not-a-Six?

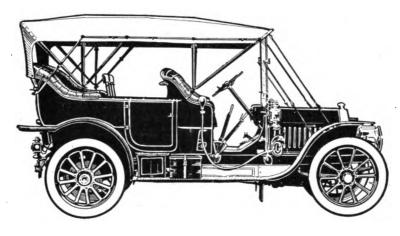
Costs no more to buy a Winton Six than it does for an oldstyle, expensive running car of equal horse-power.

And beside the economy, satisfaction and superior service of the Winton Six, its owners enjoy the prestige of being up to the minute, of knowing better than to be satisfied with what used to be good enough.

Get our 1910 catalog describing the \$3000 48 horse-power Winton Six. It's a book for your library.

THE WINTON MOTOR CARRIAGE CO., 920 Berea Road, Cleveland, O.





The Strongest Confirmation

Of Peerless perfection is the fact that only a few minor changes are required from year to year—being so good in the main constructive principle that there is practically no room, or need, for betterment. Peerless is not the car to be—it is the car that is.

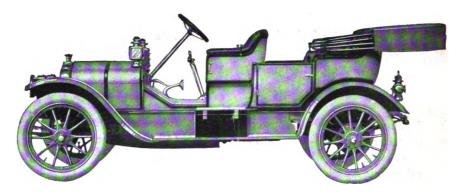
Catalog E will be sent on request

The Peerless Motor Car Company

2463 East 93d Street, Cleveland, O.

Members of Association Licensed Automobile Manufacturers

Exclusive Features of the WHITE GASOLINE CAR



The White Gasoline Car embodies a number of desirable structural features not found in any other American car, although they have been adopted for the 1909-10 models of leading foreign makes.

Notable among these features is the "long stroke" engine, which recent European experience has shown to be the most economical, powerful and efficient construction.

The White gasoline engine has less piping and fittings—in other words, is less complicated—than any other American-built engine. A single intake pipe leads from the carburetor to the engine. The charge passes to the several cylinders through passages within the engine. The charge is thus heated, a uniform mixture is secured and there is no condensation, such as takes place in engines fitted with cumbersome, external, inlet manifolds. Similarly, the exhaust gases on leaving the several cylinders are conducted to a single exhaust pipe through passages forming an integral part of the engine casting. These passages are water-jacketed, with the result that the exhaust gases are at once cooled, with a corresponding reduction of pressure and of noise.

Another exclusive feature of the White-for cars of its price and power—is a four-speed transmission, with direct drive on the third gear.

The price of the White Gasoline Touring Car is \$2,000 and \$2,500.

Write for Descriptive Circular

THE WHITE COMPANY

820 EAST 79th STREET

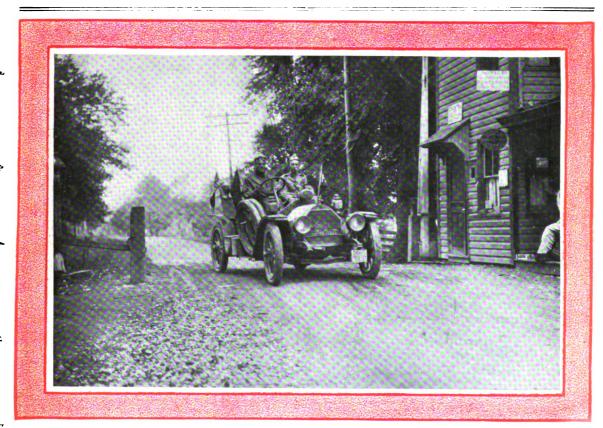
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Vol. XVIII

NEW YORK, OCTOBER 2, 1909

No. 26



A TYPICAL PENNSYLVANIA TOLL GATE---AN INCIDENT OF THE MUNSEY RELIABILITY CONTEST

\$1000 Worth of FOLLY



This is the fourpassenger Winton Six Toy Touring Car. Same chassis and same price as the fivepassenger touring car \$3000

\$3000 is the market price of the best motor car there is---the selfcranking, sweet-running, six-cylinder

When you pay \$4000 or more for a car in the 50 horse-power high-grade class, you are paying \$1000 or more for the maker's folly.

That \$1000 (or more) does not represent additional car value.

It represents a racing team or an endurance run (that doesn't make your car a whit better).

Or, publicity stunts (that do not help the car a particle).

Or, interest on mortgages or overcapitalization (which doesn't put an ounce more power on your driving wheels).

Or, the maker's unwisdom in an army of time-serving "cost clerks," or in his extravagant selling methods (none of which adds a mile to your car's usefulness).

Think it over.

Get your money's worth in car value---as you do in the Winton Six.

This car has no superior.

Latest improved type—six-cylinder, 48 horsepower motor. Best magneto and best carburetor.

Finest oil-bathed, multiple-disc clutch. speed, ball bearing, selective type transmission. Motor's working parts fully housed from dust and dirt. 124-inch wheel base. Frame narrowed in front to allow short turns. Spacious body, suspended low on semi-elliptical springs. shock absorbers.

Quiet. Sweet-running. A hill climber. Exceptionally wide range of speed on direct drive. Great on slow work in traffic.

Inexpensive to maintain. Twenty Winton Sixes ran (sworn statements of the twenty owners) 184,190 miles on \$142.43 upkeep. averages 77 cents per 1000 miles.

And the Winton Six is the only car on the market that cranks itself.

The Winton Six costs \$3000 to buy and practically nothing for upkeep. It is up to the minute. There isn't a cent's worth of folly in its makeup or in its price.

If you want maximum car value at minimum cost, you'll get our literature. It bristles with

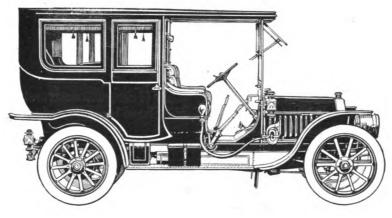
dollars-and-sense facts. Write today.

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CLEVELAND, U.S.A.					
Branch	Houses (owned and operated by the company)				

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	920 Berea Road, Cleveland, Ohio.		
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Peerless Car is the Product

Of a gradual refining process. In its present state it most nearly approaches the highest degree of perfection in motor car construction. The Peerless makes no big claims for recent "improvements"—it has long since attained the highest grade of development. This is the completed car.

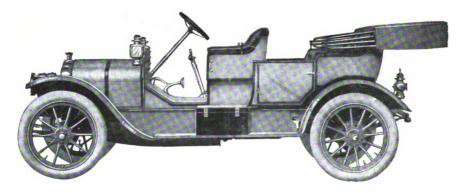
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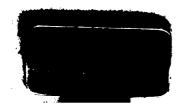
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